MARINE CORPS Gazette

JULY, 1945

Hyakutake meets the Marines

page 3

led "G-2 Estimate—a New Concept" on page 45
should be entitled "Commander's Estimate of the
Situation—a New Concept."

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Because of their authenticity as well as their artistic excellence, the original paintings for the GAZETTE'S historical cover series completed last month have been hung at Headquarters Marine Corps, Washington. This, together with the number of requests for reprints of the covers, has been most gratifying. To the artists who painted these covers, Staff Sergeants John Clymer and Tom Lovell, and to those who assisted in the necessary research, we extend due credit.

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THE MARINE CORPS Gazette

THE MARINE CORPS ASSOCIATION

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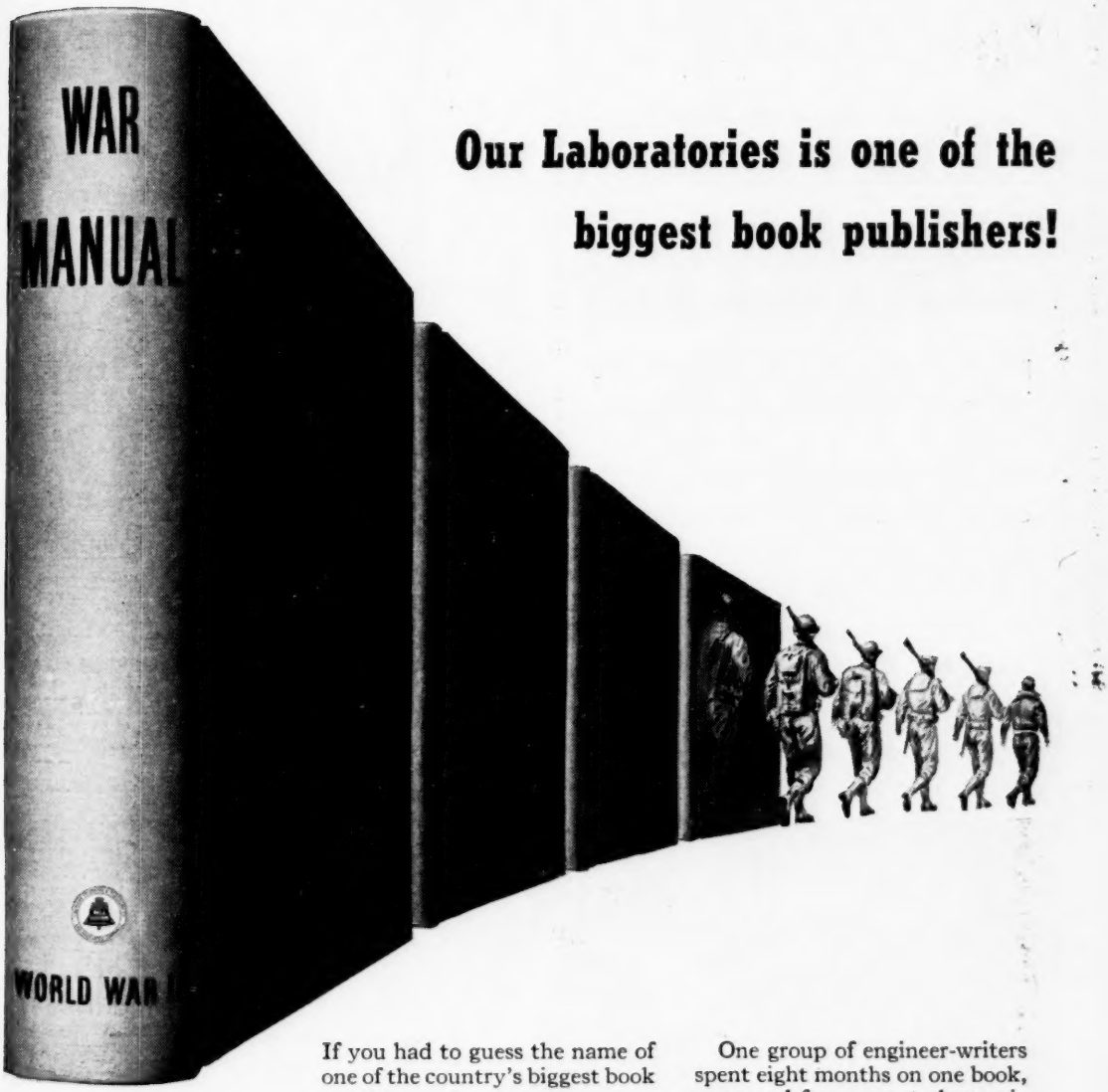

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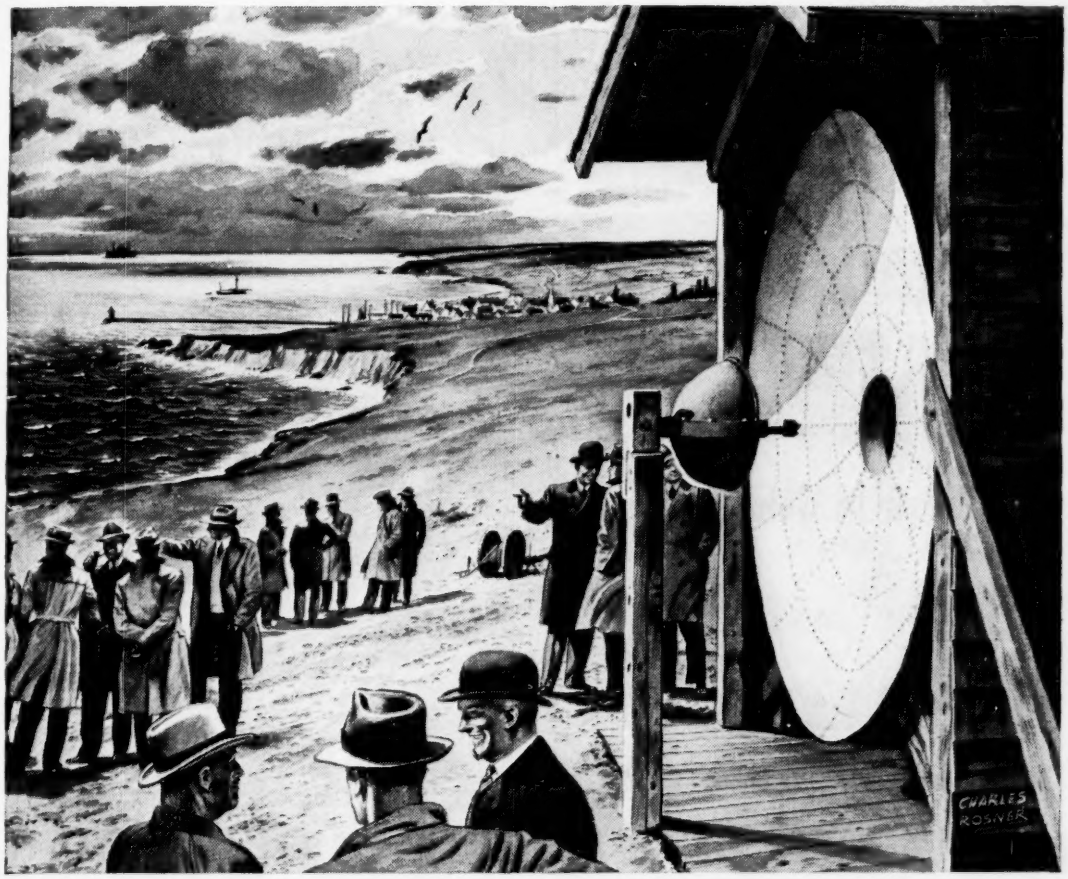

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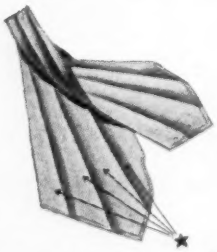

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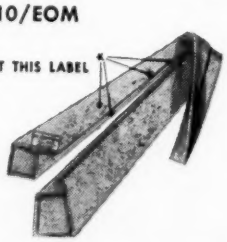

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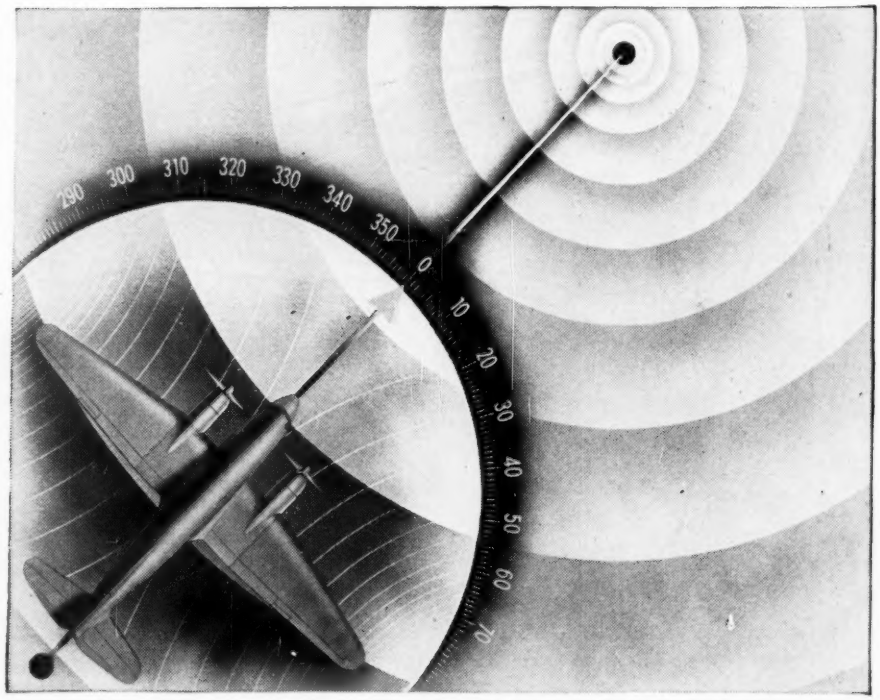

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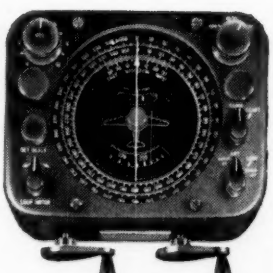

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THE MARINE CORPS
THE PROFESSIONAL MAGAZINE
FOR UNITED STATES MARINES

Gazette

JULY 1945

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NEXT MONTH IN THE GAZETTE

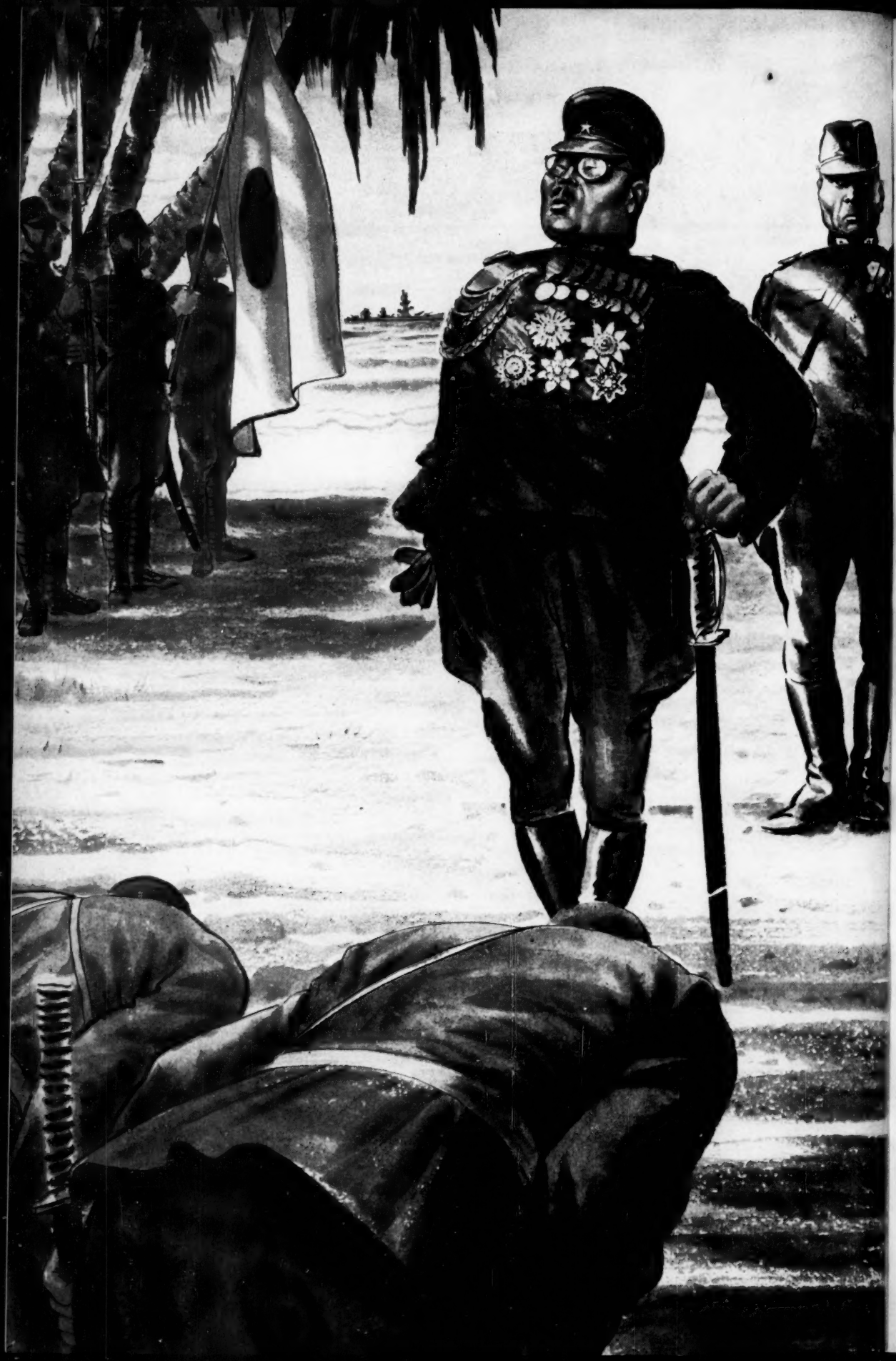
¶ In taking Mt. Suribachi, the engineers had to seal 180 caves and cave entrances in the area, and infantry assault squads and demolition teams destroyed more than 200 installations, including blockhouses, pillboxes, and covered emplacements. How this was done and how the Japs were cleaned out of this mammoth hornets' nest is told by Lt. Colonel Robert Hugh Williams in "The Capture of Mt. Suribachi," appearing next month.

¶ "The Japanese," writes Major I. N. Kelly, in "Employment of a Regimental Weapons Company," to be published next month, "may be expected to demonstrate unusual and unorthodox tank tactics . . . (and) the unorthodox must be met with the unorthodox." He points out that an antitank outfit fights just about the same way in open terrain as it did back in jungle days. The old school solutions still hold. Major Kelly, antitank specialist and gunnery officer, is a veteran of four Pacific campaigns and holds a Bronze Star Medal for "heroic achievement" during the battle of Saipan.

¶ On Saipan the Military Police had a major problem in rounding up marines, soldiers, sailors, and civilian war correspondents looking for souvenirs in front of the lines. Besides exposing themselves to obvious hazards, they fouled up operations since line troops had to hold fire to see if they were friends or enemies. How the MPs handled this matter and numerous others is told by Lt. Colonel Lewis N. Samuelsen next month in "MPs on the Beach."

¶ For those planning sea trips in the Pacific this season, Sergeant Major H. Lyon has compiled a lot of helpful travel hints on embarkation rosters, ship guard lists, casualty reports and what to do with such baggage as the office safe, field desk, and typewriters. "Your ship," he points out, "will furnish several nicely bound copies of Ship's Regulations including guard, police and mess duty requirements, but seldom will actual requirements conform to regulations." For the new word on such matters, read "The Landing Team Sergeant Major."

¶ The Royal Netherlands Marine Corps, 100 years older than our own Corps, was almost wiped out by the Axis. Almost, but not quite, for Dutch Marines are now being trained in various U. S. Marine Corps camps, starting at Camp Lejeune where they get their boot training. The story is told by Captain Quirinus Groenewegen, RNMC, in next month's GAZETTE.



Hyakutake meets the Marines

The following account of the Guadalcanal campaign, as the Japs saw it, is not intended to be a definitive one, but is rather an attempt to reconstruct the actions of the Japs by "reading between the lines" of their official communiques and propaganda broadcasts as measured against our own narratives of the campaign. Imagination has of necessity been used liberally, but while many of the events described are hypothetical, it is felt they are typical of the Jap as we have come to know him.—Author.

By Captain William H. Whyte, Jr.

ON the night of October 17, 1942, an expectant buzz ran through the group of soldiers gathered by the beach at the little native village of Kokumbona on the north coast of Guadalcanal, for in the party of officers that had just come ashore was none other than Lt. General Haruyoshi Hyakutake—commander of the Imperial Seventeenth Army, the spearhead of Nippon's invincible drive to Australia and New Zealand.

After being greeted with much bowing and scraping by an official welcoming party, the heavily beribboned general and his top staff officers went immediately to the luxurious tent of Lt. General Maruyama, commander of the Second Division. They listened carefully as Hyakutake's Chief of Intelligence, Lt. Colonel Matsumoto, outlined the situation of the beleaguered Yankees at Lunga Point. Last minute changes were made in the plans—plans that had been prepared at Rabaul with all of the cunning and deception for which Hyakutake was famed.

They were now chattering happily over their cups of warm sake, for no longer were they to suffer humiliation at the hands of the American devils. The shoe was on the other foot, for in the last two weeks the tide had turned with amazing suddenness. The great Admiral Yamamoto himself had come down to direct the final phase of the naval struggle; already units of his mighty Combined Fleet had shelled the enemy positions in a series of brutal night bombardments. The bulk of the Naval Air Force was gathered at Rabaul, and, perhaps what was most important, the newly arrived 150-mm howitzers had begun shelling the American airfield at Lunga Point. At last, after many bitter setbacks, the full might of the Seventeenth Army was deployed for the final blow, and among the hundreds of little groups of soldiers huddled around their rice fires from Visale to Point Cruz there was new hope.

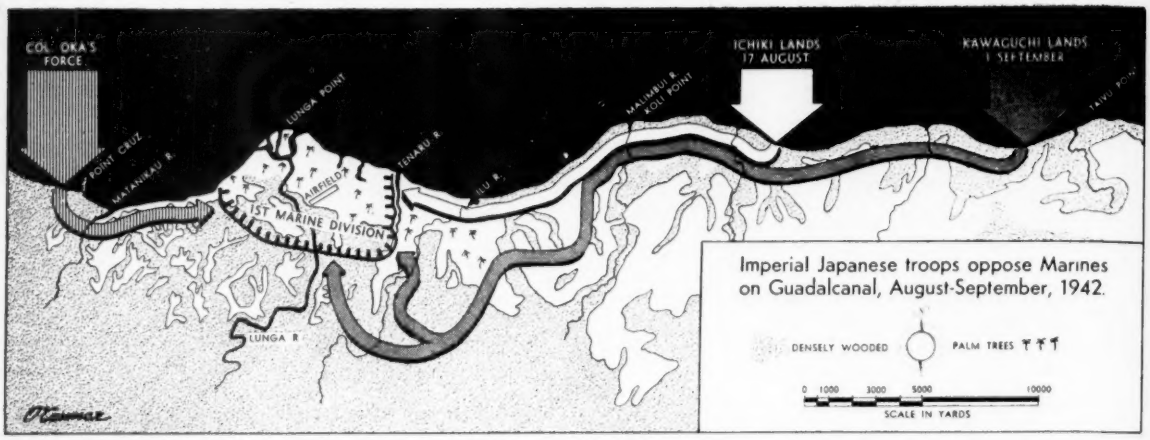
With Lt. General Hyakutake present, there was no doubt of victory on Guadalcanal.
Illustrated by S/Sgt. John Clymer

It was a strange island they had come to, stretching east and west some 90 miles, with a spiny backbone of precipitous mountains that rose as high as 8,000 feet. Along the center of the north coast the mountains lowered to give way to a series of coastal coconut plantations and large kunai grass plains interspersed with countless rivers and streams. But towards the western end of the north coast the plains gave way to a weird labyrinth of sharp, grass-covered coral ridges, the ravines between them choked with dense vegetation and 150-foot high dilo and banyan trees. Though the soldiers had often cursed the mud, the flies, the mosquitoes, the land crabs, and the oppressive heat, they had given their thanks to the sharpness of those ridges that had protected them so well from the fierce American artillery fire, and likewise to the jungle canopy that had concealed them from enemy dive bombers.

From these same ridges they could see the whole arena of battle from one spot—to the east the American positions on the delta of the Lunga River; to the west, the rugged Cape Esperance, and across from it, tiny Savo Island. Twenty miles to the north, easily visible on a good day was the island of Florida, with its satellite isles of Tulagi, Gavutu, and Tanambogo.

Formerly all of these islands had been under British rule, but in the early months of the war the enemy had only been able to maintain a small seaplane base at Tulagi and a few scattered garrisons elsewhere. Admiral Yamamoto had long realized the potentialities of this area as a naval and air base from which to stage the invasion of Port Moresby and the subsequent drive to Australia and New Zealand. As soon as Rabaul was secured, he sent down the Kure 3d Special Naval Landing Force to seize Tulagi. It fell like a ripe plum on May 3d and soon base units began pouring in.

Curiously enough it wasn't until July 1, long after the Japanese "victory" in the Coral Sea ne-



cessitated postponement of the Port Moresby operation that Guadalcanal itself was occupied, but the plans for utilizing its large grassy plains had been well laid. Aerial photos had revealed the Lunga Point area as perhaps the best potential airbase site. Accordingly when Captain Kodama and Lt. Commander Okimura arrived there with their two Naval Construction battalions, they at once began work clearing an airstrip.

Having liberated the natives from the evils of British imperialism Captain Kodama proceeded to make known the benefits of membership in the Greater East Asia Co-Prosperity Sphere. Every native was to be an "Applicant for forced labor." The labor was to consist of a month's work on the airfield; working hours 0500 until 1700 daily, pay figured at one stick of tobacco per week, and a loin cloth at the end of the month. For those who worked well Capt. Kodama promised a handsome good conduct badge, and as an extra inducement natives whose work was particularly diligent might be made a chief, with several "little chiefs" to boss.

An Object Lesson by Ishimoto

Melanesian enthusiasm for work, never very strong under any circumstances, was so notably absent that despite threats and reprisals there was soon hardly a native to be found in the area. In addition there were disquieting rumors that a large native army of 1,000 men was operating along the eastern end of the north coast under the direction of several English adventurers. Although this report seemed an exaggeration, there was a good bit of mopping up to be done. Along with the force was just the man for this sort of work—Ishimoto.

For several long years Ishimoto had endured the patronizing airs of his English masters as he worked at his ostensible trade of carpentry at Tulagi and Guadalcanal. Now, returning with the victorious Imperial Forces, he could hardly wait to greet his old enemies in his naval uniform. No longer would he have to bow and hiss politely at their reprimands, no longer would he live like a slave. He would teach these dogs a lesson!

With a group of 40-odd Naval Landing Troops from Tulagi he began scouring the villages along the north coast of Guadalcanal. He went after the troublemakers first—the missionaries. None of these hypocrites had fled, but had instead remained at their missions. On being questioned they brazenly claimed that they were not communicating with the English, but instead were looking after the needs of their "flock." Some of the other mopping up patrols merely requisitioned their supplies and personal belongings, but Ishimoto was not so easily to be misled. He knew the hold they had on childish natives, and although there was no proof, he was sure they were up to no good.

The Catholic mission near Tasimboko was the worst offender, for the priest and the three nuns there took little pains to disguise their dislike for him. At first Ishimoto had only intended to threaten them, but the priest's insolent manner, his lying answers when interrogated, demanded stronger measures. The whole thing broke when one of the nuns, evidently frightened by the playful gestures directed at them by the men, suddenly ran into the bush. They couldn't catch her, but the other two nuns and the priest were quickly tied to the coconut trees in front of the mission. Maddened by the insane sobbing of the women, and with the warmth of the sake stirring in him all of the memories of former insults, Ishimoto's patience broke. With a cry of anger he seized a rifle from one of the men and plunged its bayonet into the priest's belly. Screaming and yelling with excitement the men rushed to do the same to the nuns. After the execution was over Ishimoto decided to leave the disemboweled bodies as they were as a lesson to the natives.

There was still a good bit of unfinished business to do, as the Englishman Clemens, former district officer of the island, was still at large. He had to be caught, for the base radio at Tulagi was intercepting suspicious coded messages coming from a transmitter somewhere on Guadalcanal. At first it seemed as if it would be an easy task but the natives refused to cooperate. Whenever a Japanese

patrol entered a native village, most of the natives were nowhere to be found. If they did appear they either pretended they could not understand the Japs' pidgin English or else claimed they knew nothing of Clemens. Once a cooperative native told them of the Englishman's whereabouts, but by the time the patrol had reached the spot Clemens, evidently forewarned by his native scouts, had fled.

Despite the defection of the native workers, by the middle of July things were humming. At the finger wharves at Kukum ships were busy unloading vast quantities of aviation equipment, food, and post exchange supplies, including 125,000 pounds of rice, dried kelp, canned goods, cider, beer, and sake. Neat tent cities were erected, complete with electric lights, giant refrigerators, reinforced air raid shelters, and elaborate concrete privies. The airfield was coming along well and would in a few weeks be ready for the planes at Rabaul.

It was just too easy. Here was being completed a base which would soon be the springboard for the decisive operations against the islands to the east and the U. S.—Australia supply route, and yet, save for several insignificant raids by B-17s, there was no enemy interference. Little wonder that Radio Tokyo jibed, "Where are the United States Marines? The Marines are supposed to be the finest soldiers in the world—but no one has seen them!"

It was a very surprised Captain Kodama who was awakened the morning of August 7 by shells from a large American fleet standing offshore and by the dive bombing of scores of carrier based planes. Utter confusion reigned throughout the camp, with everyone running this way and that. The workers, low class men anyway, were hopeless, and fled in any direction they could. But Captain Kodama, although shaken by this unfortunate event, was nobody's fool and soon realized that this was just another one of the American's hit and run raids. As there was no sense in standing around in this maelstrom, he ordered the troops to withdraw to the safety of the jungle ravines to the west. When the enemy fleet had fled or been annihilated, everyone would return to Lunga Point.

No sooner, however, had the troops reached the Matanikau River when Captain Kodama saw to his horror that the Americans were approaching Lunga Point in landing barges! How in the world to explain this to Headquarters at Rabaul? He finally managed to compose a dispatch chronicling a heroic fight in which his command had been pushed westward by overwhelming numbers.

This news created consternation at Rabaul, but after several hours' reflection the commanders began to wonder if perhaps the Yankees had not played into their hands. A powerful cruiser task force was immediately assembled and ordered to catch the American fleet while it was immobilized for the protection of the transports. With great skill and cunning the Japanese commander slipped down under the cover of darkness and found the American fleet lying unsuspectingly off Savo Island. Within a few moments it was all but annihilated, even the Americans later admitting the loss of four heavy cruisers.

But despite the glorious naval victory it was necessary to organize a ground force to retake Guadalcanal—the reduction of Tulagi to follow later. This task was given to Lt. General Hyakutake's Seventeenth Army.

Now actually the Seventeenth Army had been formed for quite another task—the invasion of Southeastern New Guinea—and while the headquarters was now at Rabaul its units had still not yet been completely gathered together. Speed was essential, however, so Hyakutake had to do some quick improvising.

A Powerhouse Force on Paper

His Army consisted chiefly of the Second and Thirty-eighth infantry divisions, an independent regiment, and a brigade, heavily supported by one mountain and two heavy field artillery regiments, three AA, two antitank, and two mortar battalions, plus the usual service units—field hospitals, stevedore companies, engineer regiments, and so on.

It was a powerhouse force—on paper. By latter October the bulk of it could be concentrated, but Hyakutake couldn't wait until then to commence operations. Homeward bound from Guam, however, was a unit assigned to him—Colonel Kiyono Ichiki's crack 28th Regiment. This shock outfit had been marking time in the Central Pacific for several months as one of the assault units of the "Midway

Airfield at Guadalcanal appears in background, the Tenaru River in the center.

Occupation Force," and now, regrettable circumstances having forced the dissolution of that task force, it was on its way back to Tokyo. Hyakutake wired Ichiki to put about immediately and head for Truk, orders to follow later.

There were several things Ichiki's 2,500 men could do before the arrival of other units; they could stage raids on the American positions; conduct extensive guerrilla type operations, or they could move about outside the enemy perimeter lobbing mortar and artillery shells onto the airfield.

While it was estimated that as many as 10,000 Americans had landed at Lunga Point, there was evidence that morale was low. For one thing, their attack on Lunga Point had seemed extremely cautious, for they would not advance without the most heavy preparatory fires. They were not yet using the airfield, although it was virtually finished, and every night the Japanese troops grinned as they listened to the Americans fire prodigious quantities of ammunition into the night air. Truly, they were a spineless lot.

Despite the fact that Americans had heavy numerical superiority, the proven qualitative superiority of the Jap fighting man led Hyakutake to decide to give Ichiki a free hand, and to let him land and attack the airfield as soon as possible, rather than stage small scale harassing actions.

By August 15, the unit had arrived at Truk, and Ichiki, delighted with Hyakutake's order, had completed his plan. Because of transportation difficulties, he split his force into two echelons. The first, consisting of 900 men and himself, was to embark in destroyers and land between Taivu and Koli Points the night of August 17, then to march on Lunga Point, attack and seize the airfield in one surprise blow. When the second echelon landed on the 24th they would have the job of mopping up.

At 2100 of the 17th the entire first echelon landed from the destroyers in rubber boats, and by morning were all set for the advance to the west.

When Ishimoto arrived at Ichiki's command post he had little valuable information to offer, despite the fact that he had been patrolling the north coast for many weeks. It was certain, however, that the Yankees had been able to enlist some of the natives as spies. Only a few days before, Ishimoto told Ichiki, his old enemy, Vouza, a Sergeant Major in the native police force, had brazenly walked into his bivouac. On being questioned Vouza denied that he knew anything of the Americans' activities. Ishimoto, suspicious, had him searched. An angry shout went up from the men as one of them unrolled a piece of cloth that had been hidden under Vouza's lava-lava. It was a tiny American flag! Ishimoto commanded the men to tie him to a tree. A little bayonet practice would loosen his tongue!

It was maddening. Hour after hour Ishimoto bellowed and shouted at Vouza as the men sliced at his jet black skin with their bayonets. The black native would not say a word. When dusk came he had lapsed into unconsciousness and was dying.

It was most unfortunate, however, Ishimoto explained to Ichiki, but the next morning there was no trace of Vouza. It was incredible that he had lived through the interrogation but the fact had to be faced that he had probably made his way to the Marine lines.

Despite the fact that radio communication from his advance patrol had stopped suddenly, Ichiki's forward elements reached the mouth of the Tenaru River the night of the 20th. It was here the Americans had their easternmost positions strung out along the west bank of the sluggish lagoon-like river. Seeing that the key to the position was the narrow sandspit across the mouth, Ichiki planned to build a base of fire with his 70-mm battalion guns, heavy machineguns, and grenade dischargers in the coconut grove on the east bank, while his massed infantry would in a sudden shock attack surge across the sandspit.

After a short but violent preparation, the men, screaming and yelling at the top of their lungs, rushed across the sandspit. The Americans reeled back, and a bridgehead was quickly secured on the west bank. But the enemy resistance was unexpectedly fierce—Americans who had been encircled stuck to their guns, and others—fierce, huge, bearded men—rushed forward in hand to hand combat. By dawn the Americans were grinding the Japs back across the spit, and artillery and mortar fire was increasing in intensity.

Following Through on a Decision

Ichiki now found that his initial assault had been repulsed and that his left flank was completely exposed. But Ichiki had made his decision and would let no fortunes of the moment dismay him. He ordered one of his companies to advance through the surf and swoop in on the American left flank from the sea. The long hours of training in such tactics for the Midway operation were now to bear fruit.

Skillfully the men pushed through the water until they were opposite the American beach positions, then, screaming and yelling, they clambered up onto the beach. They were met with canister fire from antitank guns. The carnage was terrible, and the flanking unit was quickly annihilated.

Five American tanks suddenly appeared on the other side of the river and dashed across the sandspit. Ichiki didn't have a single antitank gun to stop them, but his men rushed at them courageously with magnetic mines. The tanks made quick work of these men and they cruised back and forth machinegunning and running over the tightly packed soldiers.

Soon there was the sound of shots to the rear—the enemy had outflanked them! Ichiki quickly made the decision to burn the regimental colors—for above all else the Japanese code demanded that they never fall into the hands of the enemy. As the last remnants of his command were being slaugh-

tered, Ichiki burnt the colors, and then, true to the code of Bushido, he and his adjutant committed suicide. By dark, save for the handful that had remained at Koli Point, there were no survivors.

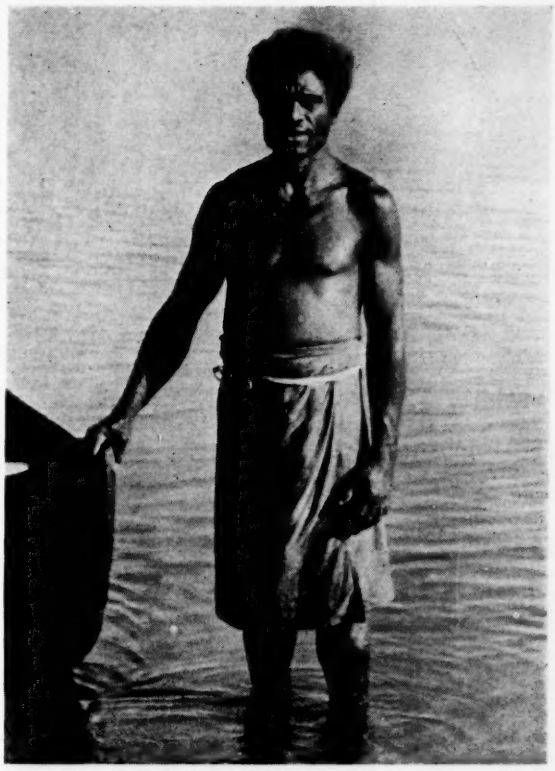
Hyakutake had had infinite faith in the fighting powers of the Jap soldier, but he had not campaigned for years on the plains of China without attaining a certain flexibility which many of his more ardent subordinates lacked. He had had great hopes for the Ichiki Detachment—perhaps it would pull off a coup that would go down in history, but he was taking no chances. At the same time that he was wishing Ichiki luck in his mission, he was meanwhile ordering another outfit, the Kawaguchi Brigade, to carry out precisely the same job—the seizure of the airfield—*two weeks later.*

Major General Kiyotake Kawaguchi's brigade had come to the Seventeenth Army fresh from its victorious campaign in Borneo, and at the time of the American landing on Guadalcanal was busy at Palau rehearsing the Port Moresby operation. It was immediately alerted, and as soon as the necessary transports were available, was rushed to the Shortland Islands. Here it had to unload into destroyers for final night runs down to Guadalcanal for at this time daylight landings were too difficult since the Americans had now finally begun to operate planes from the airfield at Lunga Point.

The brigade was composed of the 124th Regiment's three infantry battalions, an infantry battalion of another unit, and the now orphaned second echelon of the Ichiki Detachment, plus artillery, AA, and engineer units—a total force of about 5,000 men. Even before he had arrived on the island Kawaguchi had sketched out his basic plan. The 2nd Battalion of Colonel Akinosuke Oka's 124th Regiment would land under Oka himself near the Matanikau River to the west of the American positions, while the rest of the force landed, like the Ichiki unit, between Taivu and Koli Points.

There would be no rash advance this time, but rather a slow, steady secret movement through the jungle to the south of the enemy positions. Then, in one coordinated blow, Oka's force would hit the enemy from the west, while the real powerhouse punch would be delivered along a spiny ridge south of the airfield. The second echelon of the Ichiki Detachment was given the job of attacking across the Tenaru (further upstream this time) in order to put to rest the souls of Ichiki and his men.

By September 6, after an entire week of sneak night landings, the bulk of the outfit had been landed and was now assembled near the native village of Tasimboko, ready to begin the westward advance. Unfortunately, however, the Americans had discovered the landing place, and planes began to strafe and dive bomb them. The troops, who only a few days before, had been celebrating their forthcoming victory with an extra ration of one sho of sake per man, were now in a dismal state. It



Tortured, left for dead by Japs, Sgt. Major Vouza escaped to carry on his own war.

rained continuously—even worse than those torrential downpours they had hated so much in Borneo; the air raids never ceased, and to add insult to injury, a force of Yankees had insultingly landed on the 8th at Tasimboko and destroyed all of their AA guns, several field pieces, and huge quantities of rations. What made it irritating was that the enemy could easily have been wiped out had they dared to engage the main force bivouacked further west, but the only men guarding the supplies at Tasimboko had been the miserable service troops. These good for nothing soldiers, who constantly pilfered the front line fighters' food, had run at the first sight of the enemy.

While it appeared that the contents of four American transports had been landed in his rear at Taivu Point, Kawaguchi nevertheless determined to begin his westward advance and let his flanks and rear take care of themselves. It was a wise decision, for in a few days it became obvious that the American attack at Tasimboko had only been a raid and that the troops had since reembarked.

Kawaguchi had not expected his men to make particularly good time for he had ordered them to put secrecy above speed. Instead of walking across the wide grassy plains, the men had to cut and hack their way through the dense jungle bordering them. If the fields had to be crossed, it would only be at night and even then footprints were to be

Unaware that 900 rifles were aimed at them, the marines ambled along chattering.

obliterated. It was a slow, painful process, but the timetable that had been laid out was followed with amazing accuracy. There had been a few patrol clashes with the enemy, but it appeared that they had not suspected the trail was being cut so far to the south. By the 12th the units were in concealed positions south of the airfield ready for the attack.

The original plan still stood basically unchanged, save that a full strength battalion replaced the remnants of the Ichiki Detachment for the attack against the upper Tenaru. The attack of Oka's one battalion against the western flank and the attack of the main force south of the airfield would jump off at 2000 of the 13th, while two hours later the 1st Battalion of the 124th Regiment would hit the American east flank at the upper Tenaru.

The Navy and Air Force stepped up their pounding of the enemy positions to prepare them for Kawaguchi's attack. At noon of the 12th, 27 bombers escorted by several fighter squadrons pasted the airfield. At midnight two cruisers and four destroyers began shelling Lunga Point and kept it up for three and a half hours. The 13th saw practically every bomber at Rabaul thrown into the preparation with formations blasting the Americans about every three hours.

The Americans knew something was up for their patrols were blindly stabbing out in all directions. Several strong ones had bumped into the main force south of the airfield the night of the 12th but had been pushed back without too much trouble. Over to the east, where Major Ishitari's 1st battalion 124th lay waiting concealed in the jungle beside a large grassy field, the Yankee reconnaissance efforts were laughable. One 30-man enemy patrol stumbled out into the field at noon of the 13th and became so engrossed with eating their rations and watching the dogfights overhead that they failed to notice that more than 900 rifles were aimed at them. The temptation to annihilate these stupid "lookout" troops was great, but Major Ishitari, realizing that secrecy was more important than the killing of a few enemy, ordered that no one shoot. To his amazement he saw the Americans were now walking along the edge of the field right towards his battalion's secret bivouac. They ambled along smoking and chattering away with hardly so much as a glance at their flanks or rear, and although Ishitari could almost reach out and touch them, they passed by in blissful ignorance of their peril. The men were quite put out that they had not been allowed to take several Yankees alive for "questioning" and kill the rest, but their officers pointed out that this incident meant they would take the enemy completely by surprise that night.

As soon as dusk fell the battalion started wading down the Ilu River single file. At 2000 the head of the column reached a bend in the river where they were to turn west and begin the attack across the open plain in front of the American positions. A small group of enemy lying in ambush opened fire on them, but scattered as the men began to surround them. No sooner had the enemy outpost been annihilated than a terrific burst of firing and yelling met them from another force 100 yards down the river from them. For 15 minutes the firing grew hotter and hotter as the two forces battled it out. Major Ishitari, however, began to notice a strange similarity between the sounds of his own men's yells and those of the enemy unit. Perhaps the Americans had learned some Japanese phrases . . . or it could be that . . . ? Ishitari screamed at the top of his lungs for his men to cease fire, then yelling in the direction of the other force proclaimed his identity. There was sudden silence as all firing stopped, then a quavering voice from the other force informed him that he had been battling one of his own companies that had taken a short cut. Had there not been more pressing affairs Ishitari would have seen to it that the stupid dunce of a company commander understood he had to kill himself for this inexcusable blunder.

But H-hour had already passed so Ishitari hurriedly realigned his companies while the advance unit sneaked through the high grass to cut the

enemy barbed wire. When the sound of enemy machinegun fire told him that the advance party had done its work Ishitari ordered his companies to attack. Before they could go more than a few feet there was a terrible roar as a terrific artillery barrage whistled down on them. The attack had been stopped before the men could get near enough to the enemy for a charge—typical of the cowardly fashion in which the Americans hid behind material superiority rather than face Japanese bayonets.

The Emperor Is Served

The next morning the men dug their foxholes deeper as they prepared for a second night attack. One American, evidently a survivor of the outpost, was found hiding in the bushes by the river and was immediately bayoneted to death as he vainly tried to crawl away. There was one shameful incident, however, for two other Americans hiding in the bushes on the opposite side of the river only a few yards away from Major Ishitari's command post, suddenly jumped up in front of Privates Miyoko and Yamade. Although the Yankees were unarmed they were of such ferocious appearance that Miyoko and Yamada turned around and ran. Before anyone could stop them, the Yankees ran right through the lines into the tall grass and safety.

Everything was going wrong. Ishitari admitted it when he gathered his company commanders for a conference at noon. True, three American tanks that had cruised back and forth in front of the antitank guns had been knocked out, but it was apparent that casualties in the attack that night were going to be heavy. The only solace Ishitari could offer was that their sacrifice would serve the Emperor and their country.

If misfortune had struck before, catastrophe struck that night. The men bravely rushed to the attack, but the enemy artillery was unspeakably fierce. Within one hour 230 men, among them Ishitari, were killed, and 100 others were wounded so badly that when the retreat began, they had to be carried on litters.

Over on the ridge south of the airfield the main force's three battalions had launched their attack northward up the ridge leading to the airfield as scheduled. There didn't appear to be more than about 600-800 enemy troops holding the area and they had no barbed wire or pillboxes as there had been over by the Tenaru. It wasn't long before the enemy front line was overwhelmed and several units broke through to what appeared to be the American general's headquarters. Victory was almost in the bag, but the Americans were fighting with unusual ferocity, and gave ground only after the most bloody hand to hand fighting. By 0200 Kawaguchi's men had pushed the Americans back to the last ridge position protecting the airfield. The battle seesawed back and forth for several hours, but try as they might, the Japanese could not break through. Casualties mounted to alarming proportions as the now consolidated enemy increased their fire. By morning it wa sobvious the attacks had failed.

Kawaguchi had listened in vain for the sound of firing from the west which would tell him of the attack of Colonel Oka and his battalion. Oka had preferred to keep his unit in comparative comfort down by the Matanikau River rather than go through the disagreeable task of hacking trails up to the American positions. His staff officers, who knew this pudgy, bombastic little man all too well, secretly suspected that he intended to put off his attack until the main push had been successful so that the going would be easy. Whatever his motives, Oka decided not to attack on the 13th as ordered. Late the next afternoon he launched a feeble assoult against a thinly held part of the enemy's western defenses. After enough firing to justify its being called an attack, he called the whole thing off and retired once more to his hideout by the Matanikau. This disinclination of Oka's for real combat, although now disguised behind his strutting bravado, was to persist through later and more crucial actions.

Kawaguchi was meanwhile assembling the remnants of his shattered force for the retreat to the safety of the western ridges. The men, few of them unwounded, all of them hungry, were so dazed by the enormity of their failure that it all seemed like a bad dream. "We had never experienced this retreat march in the China Incident," wrote one officer to his wife, "but while our circumstances are indeed pathetic it is in many ways inspiring. The great heroes are not always found on the field of battle but also in the aftermath of defeat. The sight of these soldiers enduring hardships and hunger, their kindly affection and care for the wounded, is even more beautiful than the picture of them in victory. These are the qualities of only the faithful and well trained armies. I cannot help from cry-

Skillfully the Japs pushed through the water, then they clambered onto the beach.

"The rear units, carrying the wounded on litters . . . could hardly make a mile a day."

ing when I see the sight of these men marching without food or water for four or five days, and carrying the wounded through the curving and sloping mountain tracks of this terrible island. I have to hide my tears as I encourage those with weak will to march on . . . the wounded can't be treated—there isn't a one without maggots in his wounds. The swinging motion of the litters during the march, the fatigue, and the excess loss of blood are too much . . . hundreds died."

The retreat had been an orderly one when it first started, but as the terrible march continued discipline began to vanish, and the force broke up into little groups.

The trail was over a succession of precipitous ridges, each one covered with dense undergrowth. The lead units, unencumbered with loads, didn't fare so badly, but the rear units, carrying the wounded on litters, and charged with bringing along the heavy weapons and ammunition, could barely make a mile a day. Almost everyone was suffering from malaria and dysentery. Men dropped by the trail constantly. Cremation was out of the question, and no one had the strength to dig graves, so the dead were left by the trail where they had fallen. Rations were completely gone except for what little rice each man had on him, and the cans of soy bean mash which a few of the luckier had kept. The rice had to be cooked, but enemy planes circled overhead constantly waiting for a wisp of smoke to reveal the location of the column. During the advance along the coast they had made smokeless fires from the husks of dried coconuts, but there was nothing in this dank jungle that would burn without giving off clouds of smoke. Only at night did they dare make fires, and even then they often found themselves where no water to boil the rice was to be had.

The jungle, formerly their ally, had now become hideous. During the day little sun pierced through the vault-like canopy of vines and creepers overhead, but the damp heat was nonetheless stifling and the stench of rotting leaves overpowering. There were insects everywhere, and there wasn't a tree that wasn't swarming with thousands of red ants.

Just before dark the men would stop and clear out a place to spend the night. The wounded would be laid a distance down the trail so that the

odor of their gangrenous wounds and their delirious cries wouldn't keep the others awake. With the undergrowth heavy with moisture there were no dry patches to sleep on. The night sounds of the jungle—the bark of the repulsive giant lizards, the mocking shrieks of the cockatoos—anyone of them a possible enemy signal, never seemed more frightening. Although the men were too tired to brush the mosquitoes off their malaria wracked bodies they knew the deadly anopheles were at work.

The ordeal was terrible, but the spiritual fibre of the troops was equal to it. More maddening than the physical discomforts was the feeling of abandonment—the sense that their sacrifices were not known by those in the homeland. On the night of the 18th Kawaguchi's headquarters unit, resting in a small ravine at the base of Mt. Austen, heard over the short wave radio a broadcast of a patriotic mass meeting in Hinomiya Stadium in Tokyo. The moaning of their wounded was drowned out temporarily as they heard the voice of Captain Hiraide, Imperial Navy spokesman, proclaim exultantly, "The Marines left in the lurch have been faring miserably since they were the victim of Roosevelt's gesture . . . (Cheers) the stranded 10,000 have since been practically wiped out." It was embarrassing to listen to him go on to explain that so truthful were the Imperial communiques that the bulk of the American people had turned to them to get the real facts. The next night was just as bad, for a General Staff commentator in his radio analysis of the news stated ". . . approximately 10,000 Marines walked into a Japanese trap and were annihilated when the Japanese adopted 'drawing-in' tactics by leaving a small decoy force in the Solomon Islands."

But if nothing else had been accomplished in this terrible defeat, at least it had stirred up the high command to a realization of the gravity of the situation. By the time that the remnants of the Kawaguchi Brigade were reaching the Matanikau, the first groups of the main force of the Seventeenth Army were landing and Admiral Yamamoto's Combined Fleet was massing at Truk. It would be different this time, for General Hyakutake was coming down himself to direct the decisive operation, and he had a plan that couldn't fail.

"Hyakutake Meets the Marines" will be concluded in the GAZETTE *for August.*

To Yontan and Beyond

The Sixth Division took an airfield the first day. Then it seized Isikawa Isthmus, a naval base, and several islands. In three weeks it had cleared northern Okinawa. ***By 1st Lieutenant Alan Shilin***

ON the first of April, 1945, the greatest amphibious force ever assembled in the Pacific began landing on the strategic Japanese island of Okinawa Jima in the Ryukyu Chain.

To Lt. General Simon Bolivar Buckner's Tenth Army was assigned the mission of capturing Okinawa Jima, considered the most vital island in the Japanese Empire outside of the home islands. Okinawa Jima is the central link in that chain of islands which screens the East China Sea from the North Pacific Ocean. To the southwest of Okinawa Jima 380 miles lies Formosa; to the west 495 miles lies the coast of China; to the east 850 miles lies captured Iwo Jima; and to the northeast 415 miles lies Kyushu itself. In addition to its strategic location, Okinawa Jima provided the Japanese with five excellent airfields including one on Ie Shima, two seaplane bases, and three fleet anchorages.

To Maj. General Lemuel C. Shepherd's Sixth Marine Division went the task of landing on the extreme left flank of the Tenth Army front and capturing and securing Yontan Airfield in the initial phase of the operation. It was generally anticipated that the division would have great difficulty in securing its initial objective, considering that it was operating less one regiment, landing on the poorest beaches in the Army Zone of Action, and fighting over the most difficult terrain with its flank exposed.

The decision made by the commander of Japanese forces on Okinawa Jima, however, will undoubtedly be recorded as one of the most significant of the Pacific War.

Powerful Defenses Abandoned by Japs

At 1500 during the day prior to the landing of the Sixth Marine Division, the powerful Japanese force defending Yontan Airfield as well as all other areas between Shuri and Ampa Misaki moved, for the greatest part, to the Shuri-Naha-Nakagasuku Wan area. The installations abandoned by the enemy in the Sixth Marine Division Zone of Action were later investigated and discovered to be among the most formidable ever constructed by the enemy on a Pacific Island. Thousands of caves, intricate beach blockhouses set in coral, and other great systems of entrenchment were noted.

It must not be construed, however, that the enemy abandoned the Yontan Area and the northern two-thirds of Okinawa Jima, which the Sixth Marine Division subsequently took. Nor should it fail to be mentioned that the progress made by the Sixth Marine Division was made over very difficult terrain. When one considers that the area taken was a part of a Japanese Imperial Prefecture, one begins to appreciate the tremendous and highly complex civilian problems with which the division was confronted, in addition to the very determined and skillful defense organized by the enemy in rugged northern Okinawa.

From the experiences of the Sixth Marine Division and the improvisation by its staff in the handling of these experiences—will come a vast amount of object lessons for other units scheduled to penetrate even further into the Japanese Empire. Such problems as the handling of civilian prisoners of war, methods countering sabotage activities, precautions to be taken concerning the pillage of property, special security measures needed among enemy civilians, and other problems and their resolutions—from these will come a tremendous amount of benefit for future operations.

The Sixth Moved Fast

In a period of three weeks, the Sixth Marine Division captured Yontan Airfield, reached the opposite shore of the island, advanced through the Ishikawa Isthmus, defeated a strong Japanese force at Mount Yaetake on mountainous Motobu Peninsula, captured the Japanese naval base at Unten Ko, took numerous small islands off the coast of Motobu Peninsula, and cleared the enemy from the entire northern two-thirds of Okinawa Jima.

The landings of the Sixth Marine Division on the Green and Red Beaches of Okinawa Jima commenced at 0837, April 1, 1945, under excellent air and naval gunfire cover.

Assault battalions of the Fourth Marine Regiment and the 22nd Marine Regiment, landing on the Green and Red Beaches respectively, immediately pushed inland over the dissected rising terrain leading to Yontan Airfield and Hanza Town. Resistance encountered during the landing phase was so light as to be negligible, but assault units destroyed the large numbers of potential enemy installations which lay in their path. Behind the assault units, other units of the Sixth Marine Division came ashore rapidly despite exceedingly poor reef conditions which occurred at low tide. Companies A and C of the Sixth Tank Battalion were ashore at 0905 and the entire 15th Marine Artillery Regiment was ashore by 1530 and had registered prior to nightfall.

By 1600 of the first day, the Sixth Marine Division had secured its initial objective, Yontan Air-

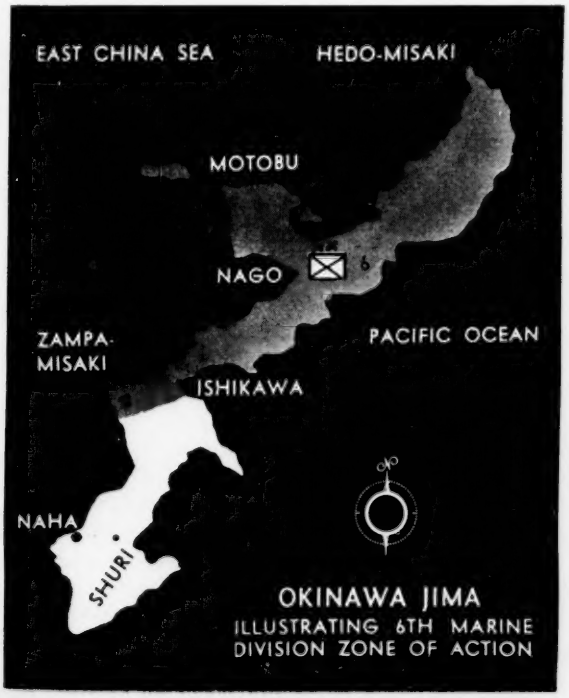
field, had captured Hanza Town, and was in an excellent position to resume vigorously its attack on the morrow. The division had seized its O-2 line before digging in for the night of the first day. Contact was being maintained with the First Marine Division on the right, which had landed between Sor Town and the Bisha Gawa.

The First Battalion, 29th Marines, released to the Sixth Division at 1300, was landed by 1500 and took up a defensive position behind the Second Battalion, 22nd Marines, protecting the division's left flank.

The 22nd Marine Regiment passed a relatively quiet night, but the Fourth Marine Regiment on the right commenced to receive intermittent machinegun and mortar fire. The attack was resumed at 0715, April 2, to seize the L plus 5 line and to clean out the Zampa Misaki area, which still constituted a serious hazard to the division left flank.

The attack jumped off with both the Fourth and 22nd Regiments abreast, with slight resistance noted in the 22nd zone of action but constantly increasing resistance was met by the Fourth Marines. By nightfall, the Fourth Marines were heavily engaged with an enemy force entrenched in mutually supporting cave positions and bunkers, east of Yontan Airfield. The enemy was employing machineguns and mortars from his previously prepared positions.

During the second day, Zampa Misaki was patrolled and occupied by the First Battalion, 29th Marines while the Reconnaissance Company patrolled the north coast of Nagahama Village and the Maeta Saki vicinity. Advance aircraft of VMO-6 became the first American planes to land when they came down on a Yontan Airfield runway during the day.



Lt. General Simon Bolivar Buckner, Tenth Army Commander, was killed in action on Okinawa, 18 June.

The night of April 2-3 was again quiet for the 22nd Marines but the Fourth Marine Regiment continued to receive machinegun and mortar fire. Attack was again resumed with both regiments abreast on the morning of April 3, with the O-A Line as the day's objective.

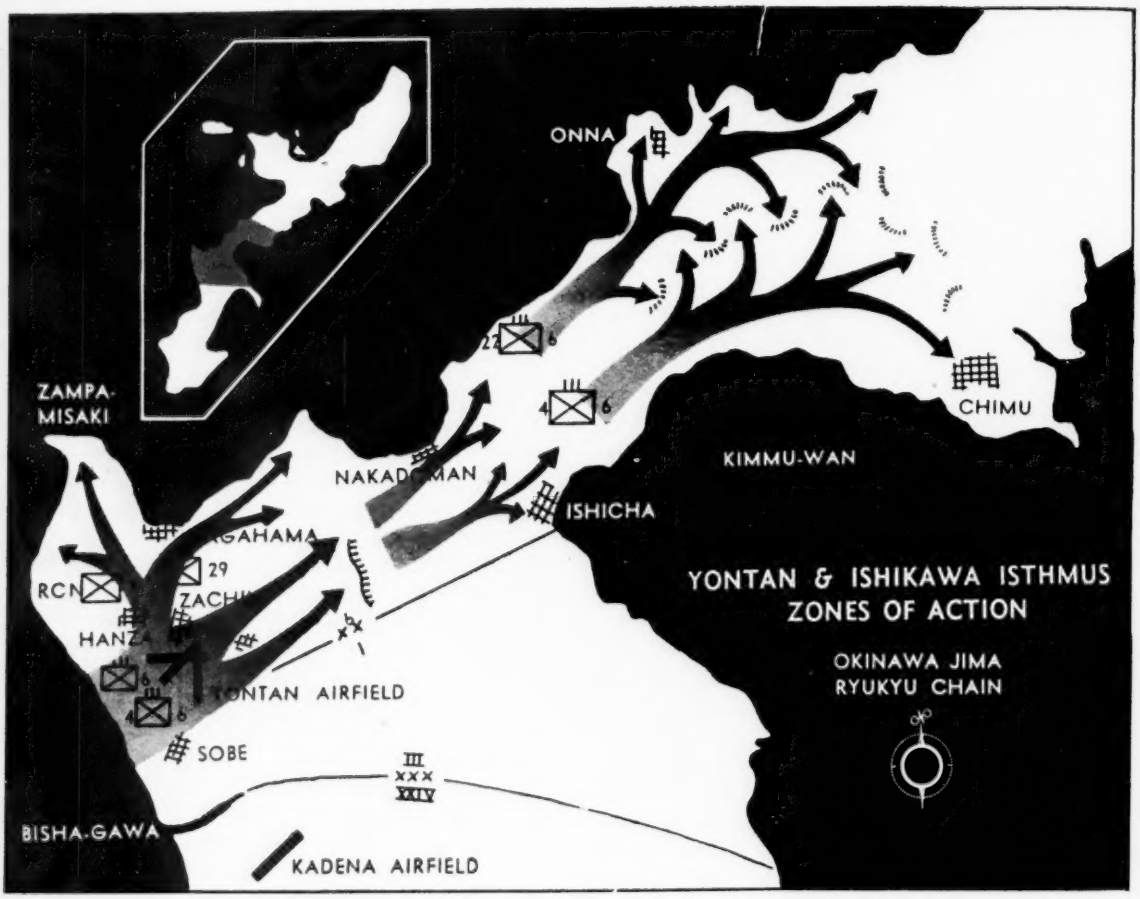
In a strikingly effective day, the Fourth and 22nd Regiments advanced over an average of 7,000 yards through difficult and heavily broken terrain, reaching the O-A Line. The enemy defensive strongpoint which lay before the Fourth Marines was speedily liquidated as were all other minor pockets of resistance in front of the 22nd Marines. Simultaneously, tank-infantry patrols penetrated the Ishikawa Isthmus in an effort to probe enemy defenses in that area and to survey the terrain which lay ahead.

Thus, after three days, the Sixth Marine Division had extended the left flank of the Tenth Army to the vicinity of the base of the Ishikawa Isthmus, approximately 12 days ahead of schedule. Yontan Airfield, now completely secure was being prepared by the Sixth Engineer Battalion to receive marine fighter aviation. Enemy forces in northern Okinawa were now severed from enemy forces in the Naha-Shuri-Nakagusuku-Wan Area.

As anticipated, the enemy rebounded swiftly from the shock which came from the landing of the Tenth Army in the Yontan-Kadena Area rather than the Nakagusuku Wan Area. During the night of April 3, intelligence was received to the effect that Japanese parachute troops were enroute to the Okinawa area. Assuming that Yontan Airfield was the most logical target for an airborne invasion, one company of the First Armored Amphibian Battalion and a battalion of the 29th Marine Regiment were swiftly moved into the Yontan area to conduct a mobile defense if so required.

The airborne invasion was reported turned back by fleet aircraft while at sea.

With the Fourth and 22nd Regiments forward and the 29th Regiment in reserve, the Sixth Marine Division entered the Isthmus towns of Nakadamari and Ishikawa on the fourth of April and then proceeded to drive into the extremely rugged Ishikawa Isthmus. A mountain range rears like a spine in the center of the Isthmus, coming down from the mountains to the north and culminating in the Yontan Zan to the northeast of Yontan Airfield. Progress through the Isthmus was exceedingly difficult for infantry; impossible for mobile equipment. In addition, small aggressive patrols were being employed by the enemy to harass the division in its efforts to move up toward Motobu Peninsula,



where the enemy was gathering his main strength in the north preparing for a major defensive effort.

The Fourth and 22nd Regiments moved up either coast of the Ishikawa Isthmus, in armored columns following the coastal roads, while patrols were employed to find and destroy such enemy groups operating in the mountains of the Isthmus.

Despite enemy resistance and the difficulties caused by terrain, the division moved through the Isthmus rapidly on the fourth and fifth of April. Fierce local actions were being fought in the Isthmus mountains during those days and enemy night infiltration attempts were numerous.

The impetus of the advance, however, had carried the Sixth Marine Division so deep into enemy territory that it was deemed advisable to readjust boundaries on April 5th in order to shorten lines of communication and relieve combat infantry for duty in the forward areas. Thus, a redefinition of boundaries was made assigning the area south of the general line Nakadomari-Ishikawa to the First Marine Division.

The Fourth Marines continued to advance up the east coast of the Isthmus while the 29th Marines, who relieved the 22nd Marines, advanced up the west coast. During the period of April 5-7, the two assault regiments made considerable progress despite the destruction of bridges and roads by the retreating enemy and despite the activities of snipers and small guerilla patrols. The 22nd Marines were employed, during this period, in clearing the mountainous interior of the Isthmus of Japanese troops.

By April 8th, the conquest of Ishikawa Isthmus was completed. On this day the 29th Marines reached the line Awa-Gasauku at the base of Motobu Peninsula thereby securing an initial foothold from which an offensive against that vital area might be launched.

Indications that the enemy intended to make his main defensive stand on the Motobu Peninsula had already been reported, disclosing that the enemy had selected the peninsula's exceedingly rugged mountains for the zone of his defense. Effort was proceeding to identify the Japanese units that would be employed to hold the Peninsula.

Steps were consequently taken on April 8th to organize the division for the battle that lay ahead. The 29th Marines were deployed at the neck of Motobu Peninsula in the vicinity of Gagasuku. The 22nd Marines were on the right of the 29th, in position to move into the great northern segment of the island. The Fourth Marines were in position to the right and behind the 22nd Marines, so deployed as to be able to move swiftly into the Motobu Peninsula or behind the 22nd Marines in

a drive into northern Okinawa. The 15th Marines were in position to render concentrated fires on targets in the Motobu Peninsula.

On the morning of April 9th, the battle for Motobu Peninsula—which was to be the critical battle for northern Okinawa—commenced to be joined.

Why the Japs Picked Mt. Yaetake

Between April 9th and 20th, the campaign for Motobu Peninsula was fought and won by units of the Sixth Marine Division. The decisive action of the campaign was fought in the vicinity of Mount Yaetake, between April 13th and 19th.

The Japanese in northern Okinawa selected the mountainous area in southwestern Motobu Peninsula, with Mount Yaetake as its critical terrain feature, for certain strategic as well as tactical reasons.

By holding the Mount Yaetake area, the Japanese would have been able to dominate all that was valuable in and about Motobu Peninsula. From the heights of their position, the Japanese could dominate Nago Harbor, the island of Sesoko Shima, and the Unten Ko area which the enemy had used as a midget submarine and small boat base. With certain heavy guns in their possession, the Japanese would have been able to affect the invasion of Ie Shima from their Mount Yaetake positions.

The choice of Mount Yaetake and the mountains surrounding it offered definite tactical advantages to a defending force.

The terrain selected was rugged in the extreme. No mechanized or heavy equipment could be successfully brought to bear on the defenses by an attacking force. Indeed, the terrain was so impassable that even infantry would have the greatest difficulty in making progress over it.

By selecting his terrain and setting up his defenses well in advance of the action that was fought, the enemy was able to cover methodically all possible approaches into his position by previously sited machineguns, mortars, and artillery. All fire could be skillfully directed from numerous Observation Posts in the mountains that had complete observation of the surrounding area.

The mountainous terrain which he was defending made it possible for the enemy to dig many caves in which to emplace weapons and store supplies that could not be reached by attacking artillery, naval gunfire, and aviation.

Because of prior planning and owing to the agricultural and heavily populated nature of surrounding areas, the enemy was able to gather large quantities of ammunition and food into his stronghold before the battle, and to put large numbers of Okinawans to building interior roads and installations.

Additional advantages of his position were:

1. His ability to bring mortar fire on all roads that an attacking force would use to bring up supplies and heavy equipment.

2. His ability to send patrols down from the mountains at night on infiltration missions to impede the communications and destroy the supplies of the attacking force.

3. His ability to receive reinforcements continually from small groups of the enemy who could work their way into the position at night through trails known only to them.

4. His ability to fight over terrain well known to the Okinawan Home Guard units of his force who had maneuvered over the terrain on previous occasions.

The Japanese force defending Motobu Peninsula was a highly diverse organization, commanded by a Colonel Udo whose executive officer was a Major Sato. The Japanese defenders, who were referred to as the Udo Force, contained in addition to Japanese infantry, an excellent artillery unit, Okinawan Home Guardsmen, and well-armed Japanese naval personnel from the base at Unten Ko. In addition to his supporting artillery, the enemy had two six-inch naval guns as well as two 15-cm army guns. With these heavy pieces, it was within the enemy's capabilities to bring Ie Shima and all other islands adjacent to Motobu Peninsula under fire.

Enemy Well Equipped and Dug In

A list of the component elements of the Udo Force, as reported, is listed below. This list has been confirmed as being virtually complete.

HQ 2d Bn, 2d Inf Unit, 44th Independent Mixed Brigade
4th Co, 2d Bn, 2d Inf Unit, 44th Independent Mixed Brigade
5th Co, 2d Bn, 2d Inf Unit, 44th Independent Mixed Brigade (doubtful)
6th Co, 2d Bn, 2d Inf Unit, 44th Independent Mixed Brigade
2d MG Co, 2d Bn, 2d Inf Unit, 44th Independent Mixed Brigade
1st Plat, 1st Co, 26th Shipping Eng'r. Regiment
27th Torpedo Boat Unit (Navy)
33d Midget Submarine Unit (Navy)
9th Naval Gun Unit (Navy)
3d Commando Unit
4th Commando Unit
1st Veterans Unit
2d Veterans Unit

The total strength of the Udo Force with the units that attached themselves to him, was probably in excess of 1,000 men. The equipment and high morale of these men, so firmly dug into an almost impassable mountain stronghold, gave the Udo Force a most formidable defense.

It was undoubtedly the enemy's intention to hold his Mount Yaetake fortress for a considerable period of time, thereby denying our forces the use of Motobu Peninsula, a freedom of action in regard to an invasion of Ie Shima, and the use of considerable numbers of our troops for a movement to

the south to join in the attack against Shiri-Naha.

Commencing on April 9th, the 29th Marine Regiment moved generally in three columns along the north coast of Motobu Peninsula, with its left flank column in the center of the Peninsula headed toward the town of Itomi.

The Fourth Marines, during the ninth of April and the following days remained in a position to be moved rapidly into Motobu Peninsula or possibly north to join the 22nd Marines, who had begun to move into the great northern segment of Okinawa Jima.

During April 9th and 10th, the 29th Marines pushed forward along the central ridges and north coast of Motobu Peninsula, meeting well-directed and determined resistance in the center and lesser resistance along the coast. Progress of the First Battalion, 29th Marines, was made in the face of heavy mortar fire supplemented by small arms and automatic fire. In the First Battalion, 29th Marines, sector—which was in the mountains of the interior of Motobu Peninsula—the enemy was able to observe all movements made by the column and to direct mortar fire so as to achieve the maximum effectiveness. Nor was the action confined to daylight operations. A heavy fire fight developed on the night of April 10th when the enemy struck the defensive perimeter of the First Battalion, 29th Marines. The attack was broken up, and in the morning, our forces reassumed the offensive.

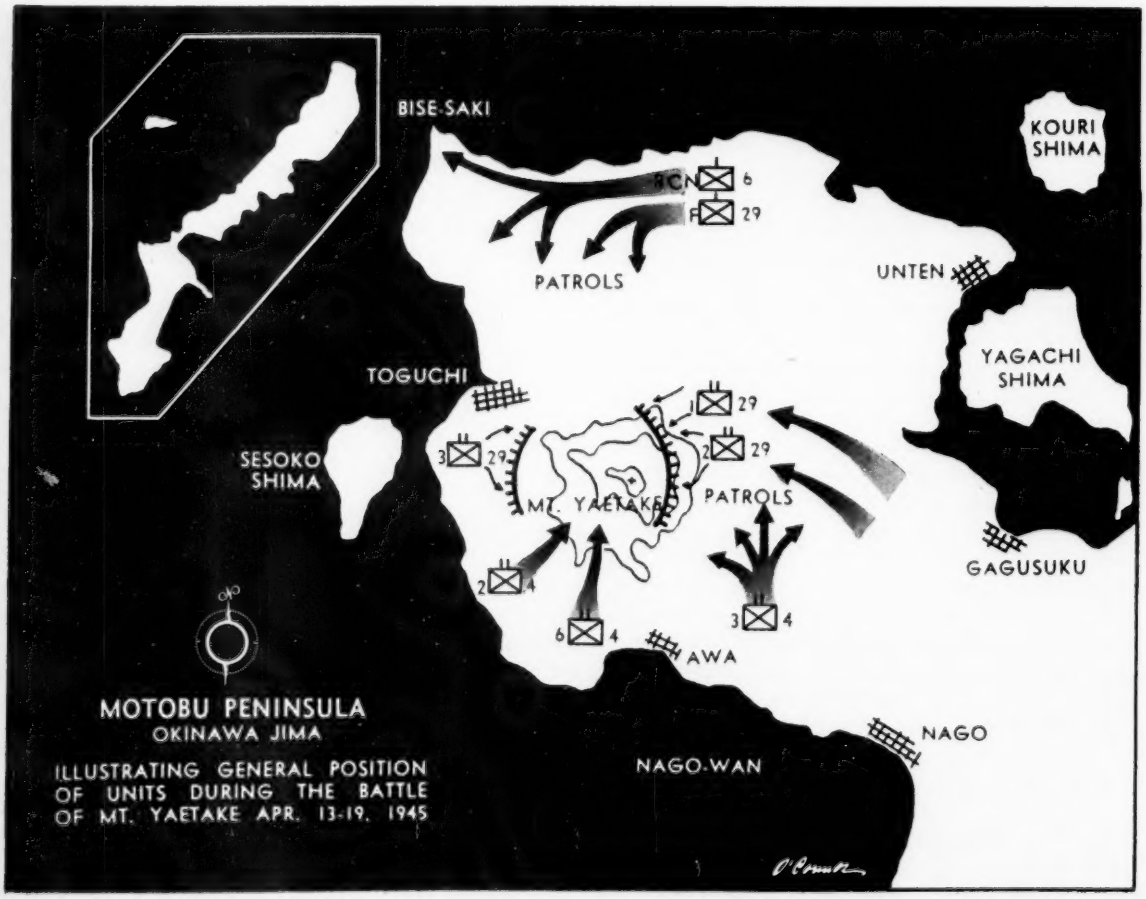
During April 10th, the right flank battalion of the 29th Marines captured Unten Ko, the valuable area which the enemy had used as a midget submarine and torpedo boat base. It was also reported that units of the 22nd Marine Regiment had penetrated the northern segment of Okinawa Jima and would cross Shana Wan on the 11th, thereby completing another phase of the Sixth Marine Division's assigned mission.

Marine Prongs Move Forward

On April 11th, the 29th Marines pushed forward in parallel columns once more, with one prong of their drive moving beyond Unten Ko toward the west coast of Motobu Peninsula and with another struggling through the tortuous terrain in the vicinity of Itomi in the center of the peninsula.

Fighting in the central Motobu area increased in velocity on the 11th. Enemy artillery joined with his mortars and small arms in an effort to halt the drive that was commencing to make contact with his main series of defenses in the Mount Yaetake area.

At this stage in the campaign, the division was bent on accomplishing two things: namely, the isolation and probing of the main enemy defensive



position in the Mount Yaetake area, and capture of the north and west coasts of Motobu Peninsula.

After an extraordinarily active day on April 12th, the Reconnaissance Company had pushed past the 29th Marines and commenced to secure the west coast of the peninsula. (The Reconnaissance Company seized Bise during the day—a radar installation deemed highly important.) Also, elements of the 29th Marines had fought their way into position along the northern side of the enemy's Mount Yaetake defenses.

Isolated Positions Bombarded

During April 13th the First and Second Battalions of the Fourth Marine Regiment were swiftly moved into Motobu Peninsula to take up positions on the east and south of the enemy's Mount Yaetake defenses—already being pressed by the 29th Marines on the north. The Reconnaissance Company, with Fox Company of the 29th Marines attached, was cleaning up the remnants of the west coast of the peninsula. Artillery fire from the 15th Marines, rocket-bearing marine aviation, and naval units stepped up the bombardment of the enemy positions now isolated.

The Sixth Engineer Battalion was engaged in developing lines of communication on the west coast of Motobu Peninsula, constructing a heavy vehicular bridge. Work on a cross-island road from Shana-Wan to Kawata-Wan in northern China went forward.

The enemy countered on the 13th by delivering artillery and mortar fire on those units of the 29th Marines that were serving to pin him down on the north and by harassing road movements on the south shore with mortars in an effort to hamper our efforts to set up the machinery for the attack to be begun on the following day.

In addition to the movement of the First and Second Battalions, Fourth Marine Regiment into position on the east and south of the enemy's defenses, the 3d Battalion 29th Marines, swung around the Peninsula to take up a position in the vicinity of Toguchi where it could exert pressure on the enemy from a southwesterly direction.

Preparing to Attack Mount Yaetake

The Second Battalion, 15th Marines received heavy mortar fire on the afternoon of the 13th which caused two batteries to displace to alternate positions.

Thus, our forces were employed as follows prior to the acceleration of our attack on the Mount Yaetake defenses on April 14th:

The First and Second Battalions, 29th Marines, less Fox Company, were exerting pressure on the enemy from the north. The Third Battalion, 29th Marines, were exerting pressure on him from the southwest. The First and Second Battalions, Fourth Marines, were in position to commence exerting pressure from the south. The Third Battalion, Fourth Marines, was in division reserve to the east in the vicinity of Awa. This battalion, less King Company, was in a position to be moved on order to join the battle and in its present position could, by patrol, prevent the enemy from leaving the Mount Yaetake area by an easterly route.

The general plan of attack called for the enemy to be compressed by a coordinated attack from the battalions on the south until he was driven off the commanding ground and destroyed. To prevent the enemy from squeezing out of the trap, the 29th Marines on the north were to maintain pressure on him while the Third Battalion, Fourth Marines, vigorously patrolled all potential escape routes on the east.

To facilitate the action, the Third Battalion, 29th Marines was attached to the Fourth Regiment. The Third Battalion, Fourth Marines was, as previously mentioned, in division reserve. Colonel Alan Shapley, Fourth Marine commander, was placed in command of the Mount Yaetake sector.

Advance Against Vicious Resistance

On April 14th, the attack jumped off. Progress was exceedingly difficult due to the combination of heartbreaking terrain and viciously determined Jap resistance. Pushing inland from the south, the Fourth Marines, Reinforced, advanced up a difficult mountainside subjected all the while to machine-gun and mortar fire received simultaneously from several directions. By nightfall, however, the day's objective had been taken.

Again, on April 15th, the Fourth Marines, Reinforced, struck the enemy and succeeded in penetrating deeper into his defenses, despite ever mounting resistance and increasingly difficult terrain. On this day, large numbers of Japanese were killed in hand to hand combat when they were driven back against the precipices by the attacking marines. Some of the enemy's strength was sapped on the 15th when he lost three heavy mortars, 27 light mortars, 14 machineguns, one 75-mm field piece, and one six-inch gun.

On the 16th, the Fourth Marines, Reinforced, moved forward again, struggling to reach a position from which it might directly assault buttressed Mount Yaetake and destroy the center of the enemy's resistance. Progress was extremely difficult. Observation for attacking units was poor; for defending units excellent. The enemy throughout the fighting showed no sign of relinquishing one foot of ground before he was induced to do so by a bayonet or flame-thrower. But the progress of the attacking force, though difficult, was relentless and by the evening of the 16th, the Fourth Marines, Reinforced, had achieved the desired key position from which it could attack Mount Yaetake itself on the morrow.

Shortly after darkness, the Japanese attempted a banzai charge to drive our forces from their newly acquired heights—undoubtedly anticipating

the final assault would be made on the following day.

The banzai charge, attempted on the evening of the 16th, was perhaps the critical point of the Battle of Mount Yaetake. When the attack was broken up and the surviving Japanese dispersed, more than 100 enemy dead were counted in front of the Fourth Marine's position. It is interesting to note that prior to the counterattack the enemy had constantly refrained from any reckless maneuver in an effort to conserve his strength for his coordinated defense. By crushing the enemy's last bid for success, the Fourth Marines insured the success of the Motobu Peninsula campaign.

On the following day, April 17th, the final assault on Mount Yaetake began. The attack was delayed until 1200 due to the difficulty of bringing up supplies and evacuating wounded.

Over the Top on Yaetake

During the afternoon, after a heroic assault over the sheer slopes of Mount Yaetake the peak itself was reached. Enemy resistance disintegrated thereafter and the success of the battle was assured. The Japanese, split into small groups and dislodged from their caves and entrenchments, were hunted down swiftly and destroyed. Great quantities of supplies were captured.

On April 18th and 19th, mopping up operations proceeded in the vicinity of Mount Yaetake. Those few Japanese who had abandoned the Mount Yaetake area and moved to the mountains northwest of Itomi were hunted down by patrols and destroyed.

By the morning of April 20th, the Battle of Mount Yaetake—climaxing the Motobu Peninsula campaign had been won.

It is of particular interest to note, in regard to the Battle of Mount Yaetake, that the tactics employed by the Japanese were not in the line of their traditional defensive tactics. The enemy adopted a fluid defense with small, aggressive, high-powered fireteams operating out of a number of prepared primary, alternate and supplementary positions. These tactics were perfectly suited to mountain defense. In addition to the fireteam, which was new for the enemy, a well perfected artillery plan was made to be coordinated with the activities of the mobile fireteams. In addition to the points noted above, the Japanese took traditionally skillful advantage of the terrain in regard to camouflage, installation construction, cover, concealment, and camouflage.

It is also of interest to note that the progress of the Fourth Marine Regiment, Reinforced, was constantly made uphill in the face of concentrated machinegun and mortar fire. A great deal of heavy supporting fire was denied to the attacking force by the rugged and inaccessible nature of the terrain. The enemy continually attempted to raid command posts and disrupt communications during the battle, but his efforts were thwarted by the alertness of responsible marine personnel.

Due to the terrain and the consequent need for personal observation and direction by our small unit leaders, the percentage of marine officer casualties was high.

The victory at Mount Yaetake secured the mission of the Sixth Marine Division; namely, the capturing and securing of all of Central and Northern Okinawa.

During the Motobu Peninsula campaign, the 22nd Marine Regiment was generally charged with the task of patrolling the great northern segment of Okinawa Jima and cleaning it of the enemy.

Strong patrols, many of them armored, emanating from the 22nd Marines, took all significant places in the northern sector and systematically liquidated small enemy groups.

On April 14, the Third Battalion, First Marines, was attached to the Sixth Marine Division from the First Marine Division. This Battalion was immediately attached to the 22nd Marine Regiment to assist it in the patrolling of northern Okinawa Jima and to assist it in wiping out such guerrilla warfare as was being waged by the enemy behind the Sixth Marine Division lines.

Thus, between April 20-30, the Sixth Marine Division was engaged in the systematic patrolling of all of northern Okinawa, where—by the 30th—all organized or moderate resistance had ceased.

Only two significant actions occurred during the period, and both involved units of the Udo force that had infiltrated out of the Mount Yaetake area and reorganized at other points within the division zone of action.

On April 21, the Sixth Marine Division learned that approximately 150 members of the Udo force had gathered in the Tanayo-Taki area, southeast of Taira and northeast of Nago.

The First Battalion, 22nd Marines, was immediately dispatched to surround the enemy and destroy him. This was speedily accomplished on April 22-23. Again, on April 27, a report was received from a patrol of the Third Battalion, Fourth Marines, to the effect that a column of approximately 200 Japanese was observed moving in a northeasterly direction in the vicinity of Kawada. This force was identified as the last sizeable remnant of the Udo force.

The End of the Udo Force

A plan was quickly formed during the evening and went into immediate execution. The Third Battalion, Fourth Marines, was attached to the 22nd Marines and ordered to jump off before dawn and follow the enemy until it was in position to overtake and destroy him. Simultaneously, the First and Third Battalions, 22nd Marines, moved southeast. It was intended that the three columns might converge before the enemy could outstrip them in his march to the northeast.

Due to the movements of the Japanese during the day, the Third Battalion, Fourth Marines, was the

first of the three units to overtake them. The Third Battalion, Fourth Marines, succeeded in surprising the enemy force in bivouac at 1145 on April 28. One company was dispatched around to the flank and the remainder of the Battalion took up positions. The enemy, armed with machineguns, light mortars, and small arms was caught above ground and quickly wiped out. Enemy dead totalled 123, including three officers. Our casualties consisted of one killed in action and eight wounded in action. During the period of April 20-30 the small islands adjacent to Motobu Peninsula were reconnoitered with negative results. They were Sesoko Shima, Yagachi Shima, and Kouri Shima.

* * *

The rugged terrain of central and northern Okinawa Jima does and will continue to provide isolated Japanese and very small groups to operate as guerrillas. Patrols are reducing the small number of survivors, however.

A Marine Considers the Jap

By Corporal George Amburn

At Guadalcanal, Tarawa, Saipan, and Tinian, I fought as a machinegunner with the Second Marine Division and came into close contact with practically everything Japan has in the way of men, material, and morale. I still cannot understand our Pacific enemy.

One general observation can be made. The Nipponese soldier is not afraid of death. In fact, judging fear by our standards, I know of nothing of which he is afraid. We won the battles, but they fought hard against us. What we learned of the Japanese soldier in the course of meeting him face to face is incorporated in the incidents which marked them in our minds.

There was that afternoon on Saipan. The night before, the Japs, in a frenzied banzai attack, had pushed our forces back 100 yards. We set out to take back the 100 yards.

When Marines take some territory, they fight like hell to hold it. That is what we expected of the Japs and we moved back in slowly and cautiously. Not 10 shots were fired to stop us. The Nips were there, lying in spider trenches or dug in behind rocks with plenty of guns and ammunition on hand. But they let us walk right up and turn flamethrowers and BARs loose on them. The Jap position there was not invulnerable, of course, but it was good. Why didn't they try to fight us off?

Immediately after this incident a call came from a Navy destroyer. About 60 Nips had crawled out on the reef several hundred feet from shore, set up a light machinegun and fired on the patroling vessel. Several of us volunteered to go out in an amphtrac after the Japs.

The Japs on the reef ignored us as we chugged out. Fifty feet away, with the Japs practically under the muzzles of our guns, we called out for them to surrender. Still ignoring us, an officer ordered his men to kneel before him. As we in the amphtrac looked on, he swung his sword and beheaded three. Then he drew a pistol and shot four more. At that point some jittery character down the line opened fire on our amphtrac. That jarred us out of our amazement and we started firing.

What possible reason could that officer have had for ordering his men to kneel beneath his sword? Why did they try to pick a fight with a destroyer and then do a fadeout in the face of a few Marines in an amphtrac?

It is expensive to take an island like Tarawa, Saipan, or Guam. It seems to me, however, that it is even more expensive to defend one and that the proper strategy in defending a lost cause would be to make the victory as costly as possible for the winners. This does not seem to be the reason behind suicidal actions of the Jap soldier, however. The Second Division became well acquainted with instances where armed and able Japanese troops took their own lives rather than put up a fight against us. We searched through dugouts after flamethrowers and grenades had worked them over. Almost invariably we would find the bodies of some who didn't wait to be burned or blown up—they killed themselves.

Sake might be the answer in some cases of self-elimination. I've stretched out behind my gun at night and heard them drinking, screaming, and singing out front. Such parties usually ended with a mad, headlong banzai charge against our prepared defenses and resulted in bloody, sickening slaughter.

Japanese cruelty toward their own people on Saipan was a shocking revelation to the Marines of another inhuman quirk in the make-up of the Jap soldier. When darkness falls on the battle line, we shoot at anything that moves out front. The Nips know that as well as we do. Knowing it, they perpetrated a cunning and a cruel act. For eight consecutive nights, they forced women and children to walk down a road covered by our machineguns. We never knew, of course, whether it was soldier or civilian coming down the road and we had to fire.

By these tactics, the Japs reaped a twofold benefit. They located our guns and were able to stay clear of them, and they forced us to lie all night and listen to the cries and screams of the persons we had wounded. I'll never understand them.

Ship to Shore and Inland

LVTs were virtually the only link between the fleet and 40,000 Marines the first critical days on Iwo. Sand blocked other transport. Amphtracs fought pillboxes. ***By Lt. Col. S. L. Stephan***

"THE LVTs brought the Marines ashore on Iwo and kept them there."

This statement, made by an officer in the Fifth Amphibious Corps Headquarters, summarizes the role of amphibian tractors during the assault phase of the battle which Lt. General Holland M. Smith termed "the toughest in Marine Corps history." Later, the tractors were to perform a multitude of functions which even we who knew their capabilities had not counted on. But during the first critical days, the LVTs were virtually the only link between ships at sea and 40,000 Marines ashore. Beach and surf conditions, as well as enemy fire, prevented other types of landing craft and motor transport from carrying out their assigned functions and the amphtracs found themselves "doubling in brass" for both.

The campaign once more demonstrates the LVTs' versatility in combat. LVTs ferried cargo, as well as troops, from ship to shore and, later, from the shore to inland dumps and the front. They evacuated wounded to hospital ships, and set up beach defenses at night against possible counterlandings. They collected shell duds and, for a time, the dead. By way of variety, there were instances when they found themselves knocking out enemy emplacements.

Assisting in an Infantry Victory

Let it be said here that the LVTs were but contributing factors to the success of the operation. Our personnel losses, compared to the infantry, were unbelievably small. The infantry, more than any one element, won the battle of Iwo Jima, and the tractor outfits are proud to have been able to give them the support they did. Because of the nature of the battle, this support, particularly in its early stages, was important, and we believe it was fully recognized by infantry commanders.

Since the LVT is a comparative baby in Marine Corps history, it has been customary after almost every operation in the Pacific to say that the amphtrac has come into its own. In a sense, this is true, for almost every campaign has made new demands which the tractors have been able to meet. At Guadalcanal, Bougainville, and New Britain they transported supplies and troops across swampy terrain which was virtually impassable for wheeled vehicles. At Tarawa, in the Gilberts, in the Marianas, and in the Palaus they negotiated offshore reefs which blocked other landing craft. On Iwo, where there was neither swamp nor reef, it proved to be the most successful transport vehicle to continually make its way over the loose volcanic sand before our engineers could scrape out roads or lay wire matting. Indeed, the amphtracs on Iwo, after the first three days, assumed almost entirely a land function. Truly, they have come a long way since they were first used on Guadalcanal.

The work of the LVTs on Iwo lends itself to a breakdown into three phases: (1) the assault, (2) the transportation of "hot cargo" from ship to shore, and (3) the transportation of automatic supplies from the beach to inland dumps and to the front lines. The first of these occupied D-day, the second spanned the period from D-day to D plus three, while the third lasted from D plus four until the end of the operation.

The assault phase had been rehearsed many times. Eight minutes after we began unloading on the morning of D-day our tractors were all in the water. At the signal from the control boat our waves drew up to the Line of Departure. The first wave consisted of LVT(A)s—armored tractors carrying no troops and mounting 75-mm howitzers which would fire on anything and everything in their paths. This would, if necessary, blast a path for the succeeding five waves, which were made up of LVTs, assault loaded, with personnel and supplies. The supplies consisted of small arms ammunition, water, communications gear, rations, machineguns, flame throwers, barbed wire, and hand grenades—everything, in fact that assault troops would need for at least one day's fighting.

The immediate function of the amphtrac crews during this phase was to get the assault troops

By H plus 30 some 400 LVTs escorted by 75 LVT(A)s had put 6500 marines ashore.

ashore safely, giving them what fire support we could. This was done on schedule and with amazingly light losses to ourselves and the infantry. By H plus 30 some 400 LVTs escorted by 75 LVT(A)s, had put 6500 Marines, constituting the assault waves, on the beach. An escarpment running parallel to the water along the entire beach prevented the tractors from going inland more than a few yards; consequently, troops debarked just ashore of the water's edge. The escarpment provided them with good protection against enemy small arms fire, which was light at this time. Japanese artillery and mortars apparently were still getting their range, because shell fire was sporadic. At any rate, most of the tractors were able to debark troops and supplies without difficulty and return to their parent LSTs to await further orders. A few tractors contained naval gunfire parties with radio jeeps. As it was not advisable to land these units until a larger beachhead had been secured, they remained in the water, calling targets from there. At that time it looked to the tractor crews like the perfect landing, with the LVTs now relegated to perhaps five days of cargo transport and then retirement from the scene. It is unnecessary here to dwell upon the falsity of this first impression.

Amphtracs as Cargo Ferries

The tractors were indeed fortunate to be able to discharge their initial function before the enemy organized himself for the heavy opposition which proved so costly to the infantry. However, it developed that a combination of beach conditions and the extremely heavy and accurate shellfire at the water's edge immediately imposed new obligations on the LVTs. This amounted to taking over virtually all ship to shore cargo transportation on D-day, due to the inability of LSMs and LSTs to get to the beaches.

Then the second phase of our operations began. This was the ferrying of "hot cargo" from preloaded LSTs to dumps and front line units. Altogether 22 LSTs carried preloads which, had conditions been favorable, would have been unloaded directly on the beaches. This cargo included additional rations, ammunition, barbed wire, and water needed by the assault troops during the first few days. However, the possibility of these vessels not being able to land had been taken into account and the LVTs were fully prepared to take over the job of ferrying these supplies ashore. The situation was complicated by the fact that a great many of the small boats, which had succeeded in landing late on D-day, broached in the surf and had to be abandoned. They were quickly wrecked by Japanese artillery. This made them difficult to remove, and, by the morning of D plus one, fully half of the regular boat lanes were blocked. Cargo had to be taken ashore as much as 1,000 or 1,500 yards from the beach to which it had been consigned.

Here again the tractors proved their value in making a landing flexible. We were able to land on alternate beaches, and cargo was moved to the proper beach without being transferred to other carriers, which would have been the case had it been landed in small boats. Although we remained the principal link between the ships and the shore for three days, the troops were supplied with a minimum of delay. Supplies were taken directly from LSTs to inland dumps and, in some cases, to the front lines. The time consuming transferral of cargo at the beach, as well as the necessity of setting up beach dumps which would have been under constant enemy fire, was eliminated. Thus, despite the fact that practically the whole job of cargo transport was dumped in our laps, the supply situation remained normal and there were no instances of units running short because of a breakdown in the transportation setup.

Wreckage Limits Beach Area

Larger types of landing craft (LSTs and LSMs) were able to begin beaching late on D plus one. Their beaches were limited for the next two days, however, due to wreckage of smaller craft and enemy fire. During this period, LVTs took much of their preload material in the water and altogether about 2200 tons of cargo was brought ashore.

LVT operations during this period were not without casualties, nor were they lacking in incident. Continuous use of the vehicles resulted in the usual minor breakdowns, but by far the most serious difficulties were encountered in the water, where tractors could not find their parent LSTs as they changed berths in the blackout. There were no fuel dumps ashore at this time and LVTs frequently ran out of fuel before they could find an LST or bowser boat. Others could not be taken aboard for refueling or repair because of swells which prevented the larger ships from lowering their ramps. The result was that a great many amphtracs became powerless and drifted miles from the island. One drifted 15 miles before a plane found it after the crew had radioed for help. Another crew was rescued just 15 minutes before their tractor sank. In all, about 20 per cent of the tractors were lost during the first two days, and 10 per cent in the next day and a half.

LVTs in the Offense

On land operations during this time our vehicles struck an occasional mine and assumed the hazards of any vehicle which might come under the fire of enemy guns. In one case, two tanks escorting a tractor across an airfield were knocked out, but the LVT continued to its destination and back without damage. In another instance, an amphtrac proceeding to the front lines with flamethrower fuel was pressed into service by a Marine patrol to assist in knocking out an enemy gun emplacement. The tractor drew up to within 50 yards of the target, on its flank, and opened fire with .30 and .50

"LVT operations during this period were not without casualties, nor were they lacking in incident."

caliber machineguns. A few minutes later the Japanese began a grenade attack that caused the patrol, which had no cover, to withdraw. The LVT crew stuck it out behind their armor and, despite the loss of one man to a grenade, kept the enemy at bay until the Marines reached safety. When the gun position was occupied by the infantry on the following day, a total of eight enemy dead were counted, all of which were chalked up to the credit, and marksmanship, of the tractor crew.

Loaded Going and Coming

Although combat operations such as this were not an everyday occurrence at Iwo, the amphtracs frequently found themselves under fire at the front, where transportation of ammunition, water, and rations became routine. On the night of D plus three one LVT received an urgent call for machineguns from a front line unit. The tractor took the weapons up and evacuated a load of wounded on the return trip. On the way back a mortar outfit stopped the driver and requested some badly needed ammunition. The crew had expected to have to go to one of the LSTs offshore but, while discharging their casualties at an LSM on the beach the crew chief found a supply of mortar shells on the ship's tank deck, broke out a working party. loaded his tractor, and returned to the mortar unit. On the return from this second trip to the front the vehicle became stuck in an antitank trap, where, with its crew, it remained until morning.

Instances such as this were frequent throughout the battle. A word in this connection should be said, too, about the work of the LVTs in evacuating casualties. In effect, wounded Marines became a return load for most of the tractors. Casualties were picked up at battalion aid stations and carried either to beach evacuation points or hospital ships offshore. They were also pressed into service for the first week by the bomb disposal squad, charged with removing the hundreds of dud shells endangering our own troops.

During this period and continuing until the end of the campaign, the LVT(A)s were used each night for beach defenses, on both the east and west beaches, to guard against a possible counterlanding. This had also been done at Saipan, where the LVT(A)s gave a good account of themselves when several boatloads of enemy soldiers tried to get ashore near Garapan. On Iwo, no such attempt was made.

By D plus three, it was possible for the LSTs and LSMs to discharge most of their cargo directly onto LVTs at the beach, which by this time had been cleared of wreckage and was under only intermittent fire. Ordinarily, our part in the operation would have been almost over. But on Iwo, the tractors found another job awaiting them. At this point the third phase of our operations began: the transportation of automatic supplies from the dumps to inland points.

Working Around the Clock

Mention has already been made of Iwo's deep sand which was negotiable only by tracked vehicles. Even when motor transport was able to operate, the LVTs were used to get supplies from roadside dumps to forward areas still impassable to trucks. Some of our tractors shuttled cargo from the shoreline to division dumps, while the remainder stayed

at the division dumps to move supplies forward. The LVTs, rather than getting the break they looked forward to, continued to work around the clock, although efficiency was naturally lower during the night.

We continued to supplement the work of motor transport in the movement of automatic supplies until the end of the battle. During this period we lost another 15 per cent of our vehicles to operational causes of one kind and another. Personnel losses remained extremely low. Crews which had been orphaned by the loss of tractors became relief drivers or were organized into rifle platoons and machinegun squads assigned to the infantry, which needed replacements badly.

Crews, Communication, and Maintenance

In summing up the work of the tractors on Iwo, three points should be made which help explain why they were able to do what we believe was an extraordinary job with the minimum of difficulty:

First, the high caliber of LVT crews, whose initiative and common sense kept the LVTs operating at a high degree of efficiency at all times. This point cannot be emphasized too strongly in evaluating the prospective achievement of a tractor battalion in battle.

Second, the communication setup, which at all times gave us centralized control of our vehicles as well as liaison with the infantry. Every LVT was equipped with a TCS radio. LVT(A)s had SCR 500 series sets. (Editor's Note: The radio setup is now different.) Companies and battalions had their own frequencies for inter-vehicle communication. The battalion nets were tied in with control vessels which in turn were linked to division control and through this to Fifth Corps control. Our dispatchers were able to assign missions to individual LVTs without the necessity of the tractor returning to its loading area. In transporting cargo to the beach, the tractors were also able to radio the control vessel on the way in, giving the amount and destination of their loads without having to make an actual stop alongside. During the assault phase of the landing, infantry units used tractors' radios to get information back to higher commands. In fact, the first intelligence off the beach was transmitted via LVT sets.

The third point to be made is that of maintenance. Here, everything did not go as we had hoped. The difficulty of refueling tractors, especially at night, has been mentioned. In this same period all repair work had to be done on LSTs, one being assigned to each battalion for this purpose. However, it was found that these vessels also carried preloads which, until they were discharged, prevented their taking on more than one or two LVTs at a time. As the preloads usually included ammunition, no welding could be done and some of our tractors were lost for this reason. Ashore, however, we were able to set up maintenance facilities without trouble and by D plus four we were doing up to third echelon repair, that is, the replacement of worn out or damaged parts. Certain tractors, carrying special equipment, were designated as maintenance vehicles and used as trouble shooters. Once we were ashore, an additional 30 per cent of all our tractors were kept in operation because spare parts and repair facilities were available.

A word should be said here about the relative merits of the two types of LVTs used at Iwo, the LVT(2) and LVT(4). Our experience in this campaign demonstrated conclusively that the new LVT(4) is much the superior tractor. There is no longer a drive shaft running through the cargo compartment and the compartment itself is larger, accommodating a third again as many troops as the LVT(2). The stern ramp permits faster and safer debarking of troops and also permits the vehicle to handle all types of cargo, especially water and oil drums which are too heavy to manhandle over the sides. The ramp also makes the evacuation of casualties easier.

Additional Advantages of the LVT

The value of the LVTs on Iwo goes beyond the points enumerated in the foregoing pages. Returning from the operation, an infantry commander summed up for me his attitude toward amphtracs:

Their low silhouette in the water, as well as their additional armor, he said, gives the troops more protection than do boats. They permit the men to make a dry landing, which is important both for morale and the efficiency of weapons. If necessary, they can debark troops in defiladed or other protected spots. When troops are able to advance inland for some distance at the time of landing, such as at Saipan, where some LVTs proceeded 1,000 yards beyond the beach, the tractors can take them to predetermined areas. Assault supplies can be unloaded with the troops, eliminating the necessity of manhandling them from the beach. "Infantry troops," he added, "feel better about landing in tractors. I think they look upon them as having superseded other types of craft for the assault waves."

Correction

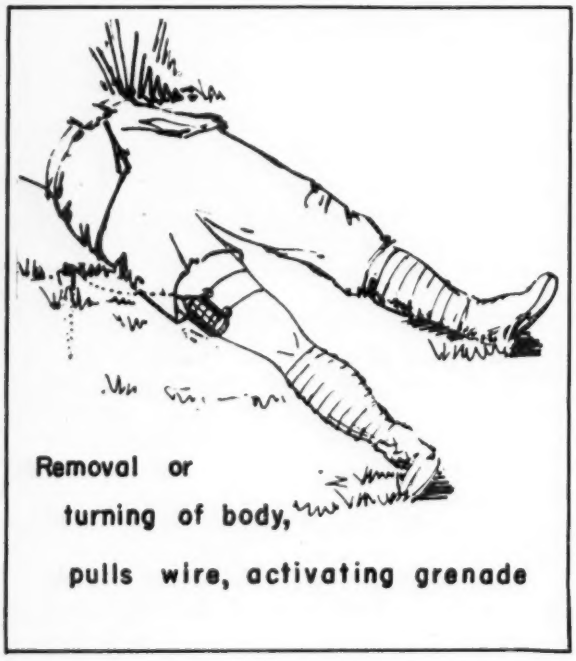
In "Underwater Marines," published in our May issue, it was erroneously stated that Marine divers receive extra pay and bonuses for hazardous work. The Paymaster of the Marine Corps carries no extra pay or compensation for Marine Corps divers.

Japanese Booby Traps

The roads to Tokyo are strewn with lethal soap bars, toothpaste tubes and coconuts. Don't lift things, don't pull wires, don't grab for souvenirs—they're hot. Never forget that dead Nips are dangerous.

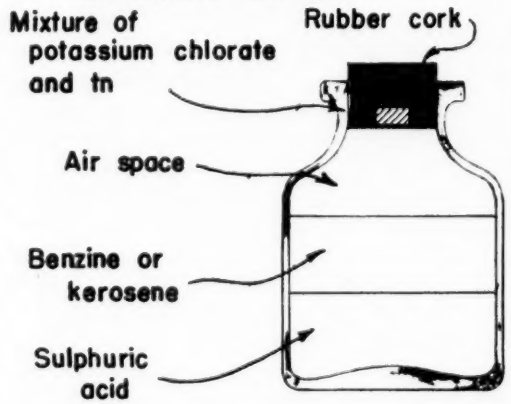
From Marine Corps Technical Bulletin Number 166

IN THE early months of World War II, the Japanese apparently were not booby trap conscious. Since they have been forced into defensive warfare, increasing numbers of booby traps have been encountered. Until the Philippines invasion, however, no systematic or comprehensive booby trapping of sizeable areas had been found in either the Southwest or Central Pacific. On Leyte, and subsequently, a decided effort to employ this technique was obvious. In the China-Burma-India theatre,

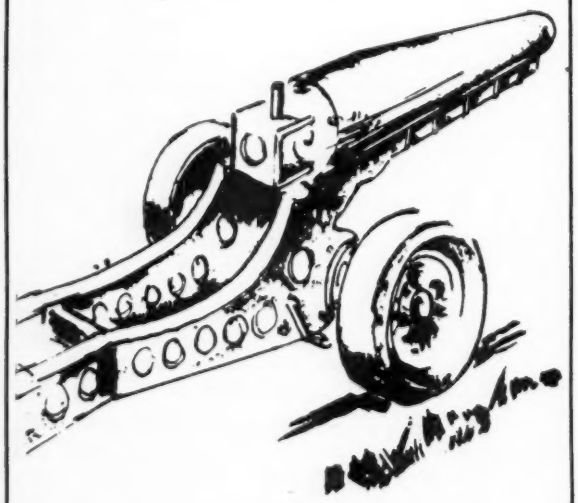


Removal or turning of body, pulls wire, activating grenade

INCENDIARY BOTTLE

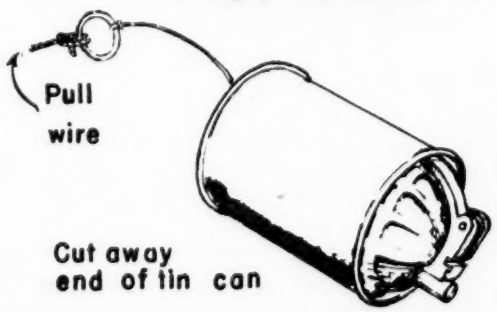


When turned over or shaken, the mixture in the cork causes acid to explode, igniting benzine or kerosene



Throwing breech activates charge in the breech block

BRITISH No. 36 HAND GRENADE
safety pin removed

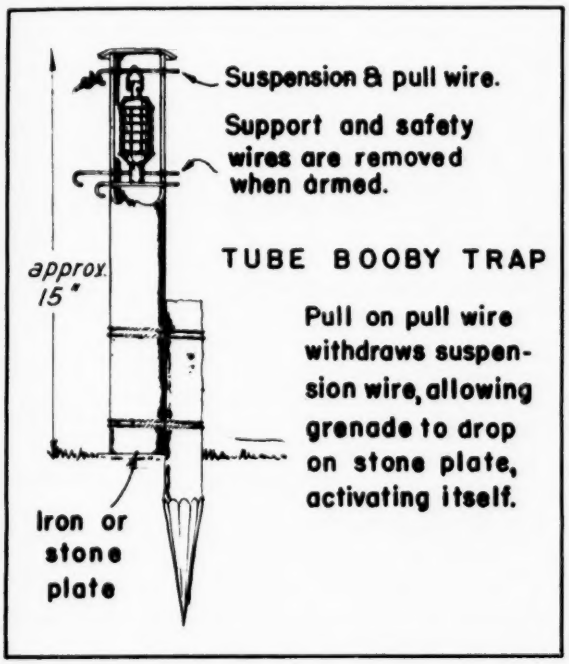


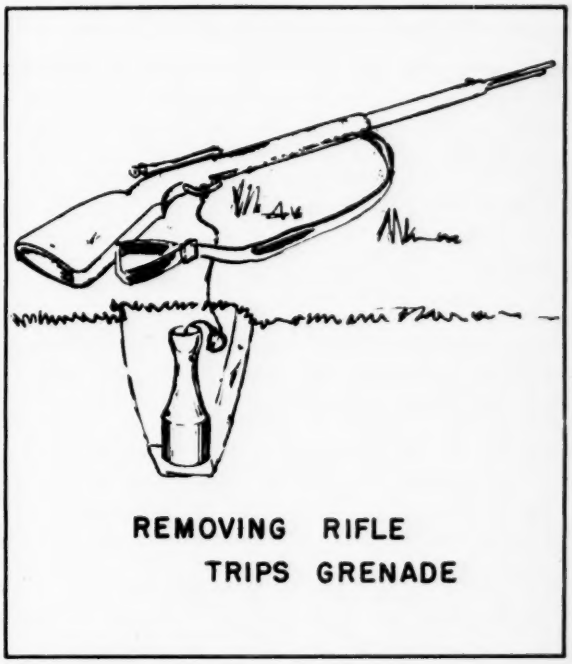
Pressure on pull wire withdraws can, allowing release handle to fly up, activating grenade

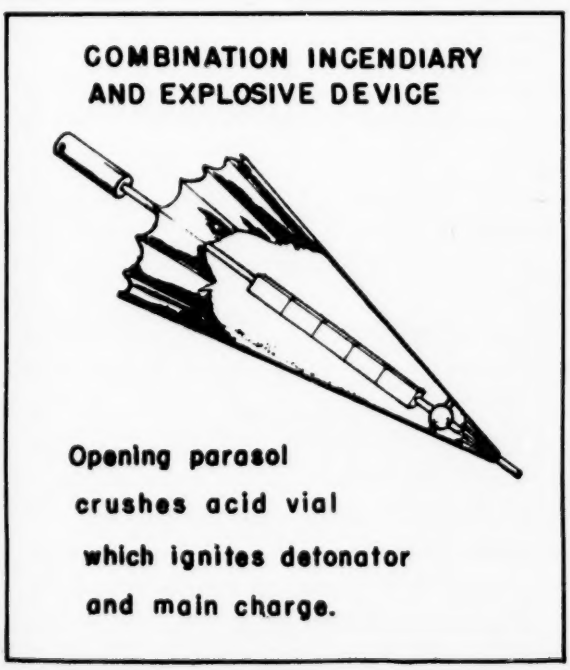
principally in Burma, more thorough use of this technique has resulted in Allied casualties. It can be assumed that the Japanese have access to German booby trap doctrine, procedures, and information on devices. An increasing use of booby traps by the Japanese in future operations appears unquestionable.

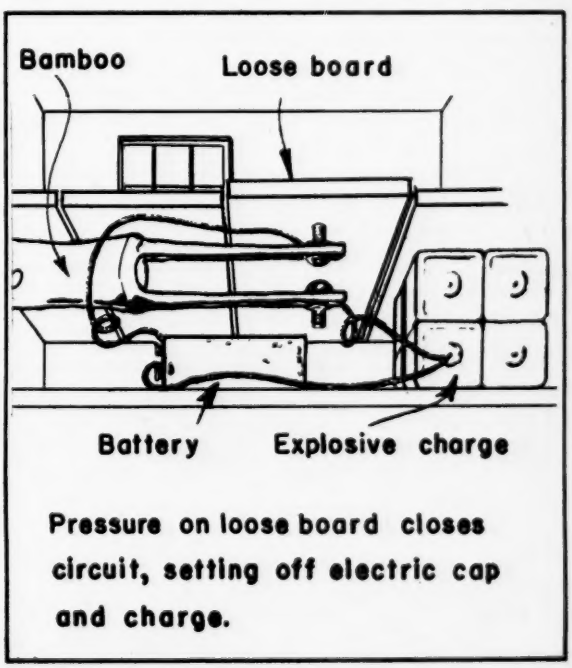
The booby trap firing devices that have been encountered to date are not primarily designed for this use, consequently Japanese booby traps usually seem to be entirely field improvisations. Friction fuse lighters, waterproof fuse lighters, Molotov cocktail fuzes, grenades, bullet pencils, and field machined pull-type firing mechanisms are the devices normally employed, but the mechanisms capable of this employment are legion, being limited only by the ingenuity of the booby-trapper. The inherent Japanese tendency toward trickery and deception encouraged by the German influence may soon result in the adoption by the Japanese of standard booby-trapping devices with increased efficiency in their utilization.

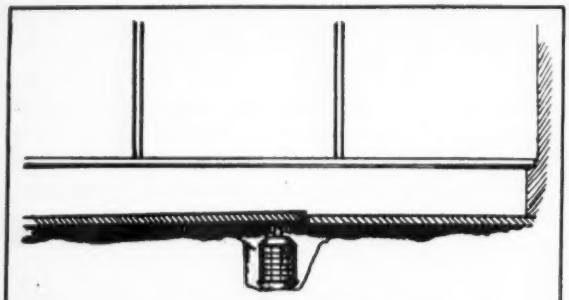
Booby traps may be found wherever the enemy has been, particularly in areas abandoned after


Suspension & pull wire.
Support and safety wires are removed when armed.
TUBE BOOBY TRAP
approx. 15"
Pull on pull wire withdraws suspension wire, allowing grenade to drop on stone plate, activating itself.
Iron or stone plate

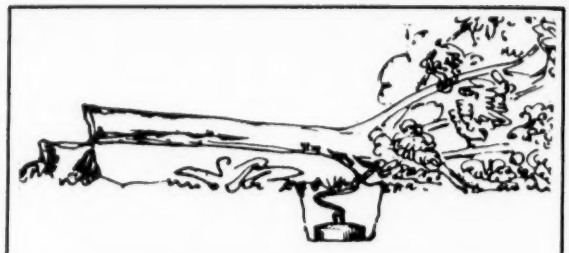



COMBINATION INCENDIARY AND EXPLOSIVE DEVICE
Opening parasol crushes acid vial which ignites detonator and main charge.





Pressure on board detonates grenade



Removal or turning of tree pulls wire, activating charge

periods of siege. More specifically, they are found in minefields, in obstacles of all types, in vehicles, in various types of equipment and supplies. They will be encountered in roads and paths, in buildings and other installations, on the bodies of the dead or wounded, and on objects of any description that might be considered as a souvenir. They may be pressure, release, or pull spring-loaded mechanical devices; friction ignition chemical devices; or electrical devices actuated by closing a circuit. They might even take the form of an electrified wire capable of electrocuting the victim. Illustrations show some of the previously encountered Japanese booby traps. However, these employments are far from comprehensive and are illustrated only for the purpose of example. The specific employment of booby traps is limited only by the imagination and ingenuity of the booby trapper.

Examples Likely to Be Encountered

Booby traps, in a sense, are anti-personnel mines. In the same manner, any other deceptive installations causing casualties to troops are related items and merit comment. The following are recently encountered items, or items of this nature, the use of which is apparently contemplated by the enemy:

1. Explosive filled coconut with a type 91 or type 97 grenade inserted as the firing device.

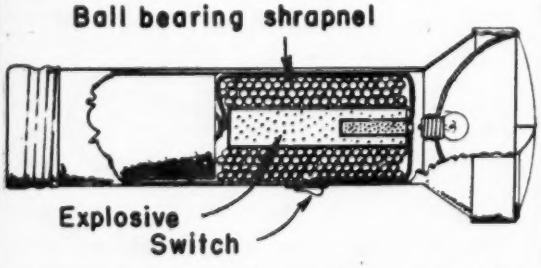
2. A tin can with fruit or other common food label, loaded with an incendiary explosive, delay fuse, and friction lighter inset in its side. It is used by saboteur civilian, or by a disarmed Japanese.

3. Item resembling a soap bar, with "P & G" or other standard soap manufacturer label, which is an incendiary complete with firing device and primer. Saboteur use.

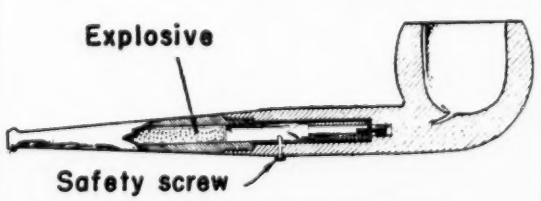
4. Tooth paste tube containing an incendiary, delay fuse, and friction igniter. Saboteur use.

5. Chevaux-de-friese, barbed wire, concertina, and other wire entanglements which are electrified. While not encountered to date, the Japanese have issued instructions concerning this technique.

A wary eye, a curbed souvenir-grabbing instinct, and a controlled curiosity are the best defense against booby traps. When entering an area believed to have been inhabited by enemy troops, senses must be alerted to booby traps as well as to normal combat hazards. Beware of obvious things. Don't cut a taut wire, don't pull a slack one, don't lift things, don't pull things. Beware of doors, windows, loose boards, closed ordnance breeches, and attractive souvenirs. Look out for electrically detonated booby traps in the nature of switches on vehicles, in buildings, on generators, searchlights, flashlights, and so on. Check wire obstacles for humming, burned grass, and sparks when struck. All of these items may be played with and curiosity satisfied once they are investigated and disarmed. Foolhardiness as a result of haste or greed or curiosity may well result in casualties. Remember, the individual alone sets off booby traps. He is his own worst enemy in a booby-trapped area.



Pressure on switch completes electric circuit through cap, detonating explosive



When safety screw is out, device is armed. Unscrewing pipe stem releases spring loaded striker which fires cap and explosive

Trained Tank Killers

The dummy runs in battle pay off when a weapons outfit has learned to wait, wait—then strike where it hurts. Anti-tankers must scout out lots of targets besides armored Japs.

By Major I. N. Kelly

> *"In the early morning hours of June 17, 1944, the reserve battalion of the Japanese 136th Infantry, using all of the tanks available to the 43rd Division, defenders of Saipan, attacked the Marines' beachhead, then only 43 hours old, and was decisively defeated." From "Saipan Tank Battle," by Major James A. Donovan, Jr., in the October, 1944,* GAZETTE.

AS COMMANDING officer of the Regimental Weapons Company, one element of the Sixth Marine Regiment's Combat Team, I saw those Japanese tanks breach the lines, and I saw our company's 37-mm and 75-mm self-propelled guns contribute their share to the defense of those lines. Here and there a tank faltered and stopped dead in its tracks. Others caught fire and turned into heaps of mutilated, burning metal. I said to myself, over and over again, "This is it. This is what we have been training for, what we have been waiting for. This is it. My boys have graduated!"

When daylight came and we could better observe the results of the team's handiwork, we saw tanks thoroughly gutted and burned, perforated by 37-mm shells, bazookas, 75-mm shells, and antitank grenades. We saw turrets that had been shot away and enemy dead that littered the field. All of our months of hard training had been justified. It had been specialized training, and it had worked.

A Well Rounded Education

The training of a regimental weapons company differs greatly from that of any other element of the combat team. Not only are all members of the company given basic training as infantry soldiers, but they also are trained in the operation, tactics, and technique of the 37-mm and 75-mm self-propelled guns, rocket launchers, grenade launchers, .30 and .50 caliber machineguns in both antiaircraft and ground operation, demolitions, pyrotechnics, mines, and booby traps. They are instructed in the use and operation of the radio telephone, wire splicing and ties, camouflage, gun emplacements, and the operation of motor vehicles. In addition, a select few are trained in motor maintenance to assist the authorized mechanics. A major part of their equipment and training is devoted to their primary mission—tank destruction.

Tanks are, of course, the primary mission of a weapons company officer. But in Pacific war, he will probably find he has more secondary than primary missions to fulfill. These secondary missions require the weapons company officer be a killer of more things than tanks. They add to his training schedule the education of his men to be versatile killers so they can support him in his task. His company will give close support to infantry with assault artillery. Their targets will be blockhouses, strongpoints, machinegun nests, and "banzai" infantry. The weapons company officer must be superb in reconnaissance, and forever seeking, by day or night, more cunning ways to kill, not only tanks, but almost anything else the enemy might throw at his team.

There Is Never a Second Chance

His men must be taught the value of teamwork—on the gun and with the infantry. His gun crews must be so thoroughly drilled that, tired or fresh, asleep or awake, they still serve their guns with speed and accuracy—there never is a second chance where the enemy is concerned. And his gun crews also must be taught the fact that, in antitank warfare, waiting is the ultimate fire discipline. They must learn to hold their fire until a hit is certain. A tank must be hit where it is vulnerable, and that will not be done at an extreme range. The antitankers' watchword is "Wait, wait, and wait." At 400 yards there is a possibility of getting a hit in a vulnerable spot, but you disclose your position. As the tank approaches, the percentage in the antitanker's favor increases. Crews must be taught to wait until they are certain to score a hit, and one shot will be sufficient. A tank cannot "hull down" at 100 yards and it cannot survive the impact of a 37-mm or 75-mm shell at this range. Rigid, tight discipline keeps gun crews waiting.

Facts such as these may be taught in basic field manuals. Modern warfare is taught from such manuals, and it is the officer's duty to school his men thoroughly from these texts. But a *good* officer goes further. He studies recent reports from all theatres of operation. He makes notes and uses this information to support, illustrate, or disqualify the manuals. There are many things which do not appear in texts. These items can come under the designation of "horse sense."

Can you discover in your latest basic field manual that gun crews must be scouts? Take it from me, they cannot be tank killers if they are not scouts. Your gun crews cannot learn tank scouting from a book, either, nor can they learn it by sitting in a

lecture hall. They must learn tank scouting in the field. The weapons company officer should enlist the help of a platoon from his combat team's tank company. The tank company will be eager to cooperate. It will give it a chance to work against antitank guns, and tank crews have no liking for enemy antitank guns. Working together in maneuvers, the tankers will learn something of the guns which are their deadly foes, and the antitankers will learn something of the tactics and technique of tanks.

Scout training in night operations must assume first place in such maneuvers. Scouting and the occupying of gun positions under the enemy's very nose is a night as well as a daylight mission. Develop "night minds" in your company. It is essential. It is the duty and responsibility of the weapons company officer to teach scouting to the boys who never have been out of sight of the "el." If there is an ex-moonshiner or former gun runner in your outfit, enlist his aid. He can teach city-bred brains a few tricks of the trade. An ex-moonshiner, a Seminole half-breed from the Everglades, was a valuable instructor in our outfit. He knew the simple, common sense tricks to impart.

Can you find in your latest basic field manuals that your gun crews must be leverage, block and tackle experts? They need this knowledge, nevertheless. Teach them the use of the dead man, gin pole, and snatch block. See that they know the loading sling technique, rope and cable splicing, and simple ties. Afternoon periods devoted to these subjects will chase away that "sleepy grind" feeling and will save your endless worry in the handling of your equipment. In action, your company will not have to seek special assistance and wait for it to arrive when trucks and guns face mortar infested beaches, bogs, thickets, or mountainsides. If your company has a steel worker or an oilfield rigger in its midst, he can teach you and your men things about these matters that are not in the book.

Use the Talents of Your Men

Can you find in your latest basic field manual that you must be prepared to rig for crossing a stream where no bridge or ford is handy? Do you want to put your beef in, pass the buck, and wait for the engineers? Or do you want to cross on your own? If your men know the folded canvas technique, the use of a rubber boat, a native dugout, or the construction of a raft without nails, you can cross on your own. Teach your men to use the material available under normal training conditions, and they will use it automatically in actual warfare. If you have a man from the swamp section of Mississippi or Louisiana, give him a chance to teach you and your outfit something of the river trade. He can do it and he also will think that you are a "right guy." When you use the talents of such men, your placing of them on the "telling" and not just the "receiving" end not only benefits the entire company, but the individual as well.

Training of your company should emphasize always the "surprise" element of combat. Surprise is the enemy's as well as your own division's sleight of hand. Train against it. When you have your company in the field, imagine what you would do if you were the enemy, and do it. Enlist the help of the tanks again and ambush your company on the road. Simulate dive bombing attacks. If no tanks

"We saw turrets that had been shot away, enemy dead that littered the field. All our . . . training had been justified. It had been specialized training and it had worked."

are present, simulate sudden armored attacks. Do an entire exercise in gas masks. All of this may happen to your company some day and if you have been thorough in your training, the reaction to the emergency will be automatic.

And do not ignore the recent texts on camouflage. Study each picture in the texts as religiously as if it were the latest Petty or Varga girl. Put the pictures into practice, selecting the ones that best suit your vehicle, gun, and terrain. Don't always camouflage in foliage; pick some barren spots—there's a lot of open country in China. Include some gun emplacement techniques under that camouflage.

After you have trained your gun crews to great speed and when they are letter-perfect in their roles, fire all the ammunition you can get and fire it at all conceivable types of targets—movement and fire, movement by hand and fire, fire, fire.

Fire in foggy weather, in the rain, in bright sunshine, on a cloudy day, and, above all, fire at night under both moonlight and 60-mm mortar illumination. The latter is extremely important. In the early hours of the morning on Saipan, I watched our first 37-mm projectiles arch over the Jap tanks and, despite the racket which made my words indistinguishable, I shouted: "Bring them down, boys, lower, lower." I had anticipated the difficulties of indirect light firing during our training phase, but the only 60-mm illuminating rounds available were for demonstration purposes only. Expert gunners who, in daylight, can hit a "C" ration can at 600 yards, will miss a 6 x 6 target 150 yards from the gun the first time he fires by ship star shell or 60-mm flare light. Rapid calculation of ranges under a bright waning light differs greatly from daylight estimation. Targets cannot be picked up through the telescope. It is necessary to sight over the 'scope and allow for error. Technically, there are two zeros for the gun. Unless a gunner understands this and allows for the normal error, he becomes a confused gunner. Don't take my word for it, try it. Enlist the aid of the 60-mm mortars from the battalion to which the 37-mm platoon is normally attached.

Are your men gadget minded? The special weapons officer should encourage inventiveness, for as good as weapons and equipment are, new rigs constantly are being tested and found good. First Lieutenant C. McWiggins, a lawyer before joining the Corps, secured a few Jap bomb dolly wheels at Tarawa. He successfully attached one to the lunette of a 37-mm gun, turning it into a tricycle. The gun handled some 50 per cent easier than under the old method. First Lieutenant L. E. Brown suggested that the 37-mm gun be habitually fired without the wheel segments. This was tested and found to be just as accurate for all field purposes. With the sanction of the Division Ordnance Officer, all the wheel segments were removed.

Develop the gadget mind for the good of your organization, and listen to suggestions.

Map reading and aerial photograph interpretation are essential skills for every man in your organization. A well made map gives at a glance a picture of the countryside over which you will operate. As most of our maps are made from the interpretation of aerial photographs, the map technician must guess and visualize at times what is under a cloud spot. He has eliminated this guess and turned it into a near certainty if an oblique photograph of the particular location is available. The average man is inclined to damn a map in an attempt to cover some error he has made while on an operation. It has been my experience, however, that in the long run the map technician is about 99 per cent correct in his deductions. If errors are found, report the errors through the proper channels. But once the erroneous location is passed, assume that the map is correct. If your men are taught this, and if they can read maps, they will be cured of this "Mapdisturbitis." Your supplies will arrive at a designated location minus confusion. Correct mapreading, incidentally, does not originate in the lecture hall any more than does good scouting. Take your men on a walk over the countryside, not to admire the flowers—that can come after the war—but to study potentialities of terrain for stopping tanks, concealing guns, and vehicles. Teach orientation and two point resection. Practice it daily.

In your special weapons company, *all* your men must be taught the use of *all* organic weapons. You should even strive to make all your men experts in their use. No cooks are needed to prepare "C" or "K" rations, but they might be needed to fill casualty vacancies. Include cobblers, barbers, and other duty men in this training. Do it the old-fashioned way, by nomenclature, crew drill, practice, and accurate firing.

The Marine and His Weapon

Where weapons are concerned, it also should be borne in mind that there is no better way to break down the self-confidence of a man than to issue him a personal weapon, have him zero it, and then take it away from him because he has changed his position or job and the TO says he rates a different arm. This fellow is the one you may meet on D plus one with a strange weapon. When he explains to you that "I never was given an opportunity to zero the new rifle I got a few weks ago and I can at least spray the countryside with this," you have only yourself to blame. It is your responsibility, and yours alone, to see that a man is afforded the opportunity to zero his new piece if circumstances require him to change his personal weapon. There is all the difference in the world in firing a .30 M-1 and a .30 carbine. You should request ranges for your company and practice often. Ammunition is available.

In maintenance of your vehicles, be merciless with the men who abuse or neglect them. Care and

maintenance texts are issued as guides, but go further than the printed word. Exercise judgment and common sense. Treat your vehicles as horses were treated in the old days, for you will need these vehicles badly some day. If they break down at a crucial moment, look in the mirror to catch the fellow who is to blame. Be thorough and systematic in your vehicular inspections. Have your training schedule include at least two such inspections monthly, and stick to your schedule. Require that your drivers lay out every screwdriver, wrench, or extra gadget they may have acquired through the "God knows where" channel. An ex-cab driver in our outfit suggested that each driver mark mentally the spot where some vehicle was changing a tire or having motor trouble. If the spot was vacated on the driver's return trip, there probably could be found some loose gear that had been overlooked, the former cab driver said. He was found to be correct. Our drivers said they seldom left such a location empty-handed.

All of this training, of course, is valueless unless the spirit of the officer is in it, so that he can deliver it in the right way to his men. Get in behind their minds. They are antitankers, are they not? Then breed in them pride in being the leading antitankers of the division. Make them realize and be proud of the fact that they are the most thought of and talked about outfit in the regiment. Make them feel that they are the most important fullbacks on the team; that battle success depends on them.

When your men are embarked aboard ship on their way to battle, strive to be the first officer to pass out the correct dope. This, of course, must have the sanction of R-2 and R-3, but your men are entitled to know what they are trying to do. No sane man would attempt to teach a horse to jump with a hood over his head, and no sane man would ask his men to fight when they didn't know what it was all about. Answer their questions to the limit of your ability. Be frank. In the hell of battle, the degree of your organization's success will be determined principally by the morale, stamina, and training of your individual man.

EVERYONE MAKES MISTAKES

The first time in battle most all of us make mistakes. In spite of long months of training and constant briefing we inadvertently make our own "booby traps."

There is no substitute for experience and it is wise to live by the experience of others. The do's and don'ts of battle, as learned by Marines from Guadalcanal to Okinawa, are recorded for you in

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*Membership in THE MARINE CORPS ASSOCIATION and benefits therefrom included if applicant is a member of the armed forces.

Basic Concept of the Task Force

The mission is the big idea. Next is the assembly of tools and men and methods to do the job. They must be suitable. They must be adequate. ***By Capt. Miles R. Browning, USN***

THE mission to be accomplished is the determining factor in a sound military organization and this basic principle applies with equal force in peace and in war. But there is a fundamental difference in the mission of the armed forces of a country at peace from that of those same forces when the nation is at war. This difference dictates that the task basis of organization shall be more widely employed in wartime than during peace. Peace involves primarily training; war brings combat. Type organization facilitates training; task organization promotes success in combat.

A surprising number of officers in our services today lack a clearcut comprehension of the task organization concept, and to point it out a comparison of the peace and wartime missions of a military organization can be made.

Perhaps the simplest and most all-inclusive definition of the peacetime mission of the military establishment of any sovereign power is contained in the blunt advice: "In time of peace, prepare for war." This is a broad mission, to be sure, and there are many examples in history of nations ostensibly at peace who have narrowed that mission to the field of preparing an assault against one or more specific powers. Nations so occupied cannot properly be said to be at peace, so to insure the clear understanding of this broad and indefinite advice we might say: "In time of peace, prepare for (some) war."

Remembering the axiom that the mission is the basis for sound organization, we find that in peacetime the mission is preparation and training for war *in general.* And modern warfare has become so complex and highly specialized that this training has to be channelized. It is beyond human capacity to attempt to combine in an individual or in one element of the armed forces a satisfactory proficiency in the employment of all the special tools used in modern battle. We also are constrained to conduct the greater part of our peace training by type because of the limitations of the weapons themselves. For example, the naval gun is a high velocity, flat trajectory weapon possessing essential characteristics for naval combat. It is of little value for use against land objectives, however, and its employment ashore is, therefore, almost entirely limited to coastal emplacement. In like manner, the howitzer is of little use at sea.

There are primary factors which limit peacetime training to type and the predominant related military organization to type also. There are other factors, also. One of these is the fact that type organization promotes economy of operation, facilitating standardization of method and reduced overhead, while combined or joint operation is necessarily on a large scale and is decidedly expensive. There is always the question of whether or not the national economy is geared to the heavy drain of maintaining the powerful peacetime fleets and armies implied in combined operation.

Another influence is implicit in the nation's foreign relations policy. Will it support large scale maneuvers which risk incurring the resentment of powers who may consider that they are the potential enemy envisaged? The United States vis-a-vis Japan in the years before Pearl Harbor provides an excellent example of this. Under such circumstances, opportunities for worthwhile training on levels above the type echelon inevitably are curtailed.

These considerations are particularly applicable in the cases of the democracies, which are classically non-aggressive. The United States is an excellent illustration. Real and adequate joint amphibious training, involving all arms and services in peacetime, was unknown to United States forces before the present war.

When war comes, or when it threatens, these conditions change. The primary mission of the military establishment is narrowed at once. It is no longer to prepare to meet some enemy somewhere, but to meet *this* enemy *here.*

To Defeat the Specific Enemy

Training, of course, does not cease with the incidence of war. Individual and type training are necessary in the conversion of millions of novices into members of the armed forces. But in the overall training program we now find a vastly greater emphasis on combined and joint training than existed or was practicable during peace. We also find that training surrenders its peacetime position as the primary task of the Nation's forces to the imperative mission of defeating the specific enemy.

For this task, the type organization will not do. All types must be welded together at the earliest possible instant into a single balanced force, tailored to the dimensions of a definite job, whose coordinated blow will give us the knockout we must have for victory. All weapons must become one iron fist. The Nation's combat forces must shift to the task force framework. Here are two equa-

tions which embody the solution of the problem of successful organization:

(1) Peace + training + type organization = efficiency.

(2) War + combat +task organization = victory.

A task force is exactly what the name implies—It is a force organized to do a specific task. While so engaged, and until dissolved, it is one integrated unit under one commander. It may comprise elements of any number of different types, many or few. These, so long as they form a part of the force, are operated to support the force in the accomplishment of its assigned task. Their presence in the framework of the force is due solely to their ability to contribute to that accomplishment. The composition of the force is dictated solely by the twin considerations:

It must be suitable for the task.

It must be adequate for the task.

The basic concept of the task organization is as old as the combat activity which brought it into being. But it is only in recent years that this concept has been made articulate. It may be summarized as follows:

1. The necessity or desirability of accomplishing a certain objective having become apparent to the high command, the forces available are scrutinized with a view to selection for the purpose. Unsuitable forces are rejected; suitable forces, if available in sufficient strength, are assigned. These are grouped together into a single overall command under a single overall commander of the operation. Home ties with any other command or administrative organization of which they may have formed a part are broken for the period of their assignment to the force. The command is absolute throughout the existence of the force; it is not cooperative.

2. The task to be accomplished constitutes the mission of the force. This is broken down into practical phases and missions dictated by the plan of operation decided upon by the overall commander. These contributory tasks are assigned to the various groups and units into which the entire force, as well as its major echelons, is subdivided. Each of these subdivisions is composed of suitable and adequate units to accomplish the job assigned to it. During the operation, as transition from one phase to another occurs, new or additional tasks may be assigned to any unit at any time. Elements may be shifted by the commander of the related echelon of the task organization to augment temporarily a unit as necessity or economy dictates. New subdivisions may be formed and old ones cancelled as desired, within the limits of the forces available in the task organization.

3. At the direction of the high command (normally the theater commander), elements may be withdrawn and returned to their former organizations or to other task forces as operations progress; likewise, reinforcements may be added to the task force or any of its components. It is the responsibility of the high command to make available to the commander of the operation adequate and suitable forces to accomplish the mission and the operation commander employs these as he sees fit.

4. When the operations reach a stage which, in the opinion of the high command, permits it, the task force and the operation commander are relieved. If the mission was seizure of an enemy position, the captured objective is normally incorporated into the occupied area of the parent theater at this time. The task force may be dissolved at the time it was relieved or it may be assigned further tasks as desired by the high command.

Task Organization Is Highly Flexible

Probably the greatest stumbling block to clear understanding of the basic concept of the task force lies in the attempt to view the task organization as superimposed on the normal type and administrative framework of the elements involved. This is a common error even at this late date and it invariably results in failure to grasp the basic principle. The type organization is fundamentally inflexible; the task organization is featured primarily by its great flexibility. Any task unit or group may find itself an integral part of any of several different groups or forces from time to time during the progress of an operation. Its strength and composition may be altered on a moment's notice; its echelon may be raised or lowered similarly. The task organization facilitates this fluidity; indeed it is the only system which permits such rapid transitions without fatal consequences.

The completely distinct frameworks which support, on the one hand, the task force, and on the other, the normal type or administrative setup may be illustrated by a college football team. Consider, first, the normal functioning of the college occurring through the president and the various administrative offices—the familiar functionaries in the "chain of command." The football season approaches and the school is confronted by a football schedule with traditional rivals. Obviously, the first thing to do is to put together a football team; in other words, to form a task force whose assigned mission is to win the games. The student body (the "forces available") is picked over for likely material. This is further screened by the coaching staff and, eventually, a squad is gathered. For each game (operation), a suitable starting lineup is picked from this squad by the head coach, and each contest is played by the school task force—the football team.

Logistics enter into the football campaign to the same vital and inescapable degree that they do in combat operations: the training table and the training regime are an integral part of our football task organization.

Remember that each player on the squad—and

probably some of the coaching staff—has his position in the normal administrative and academic organization of the school (the type organization). Pete Brown, the all-American end, may be a junior majoring in political science; Jones, the head line coach, may be an assistant professor of chemistry. But any attempt to understand the school's football organization or the team's tactics in the light of Pete Brown's interest in local government or of Jones' chemical qualifications will end in failure. You cannot superimpose a task organization schematic diagram over a diagram showing type or administrative organization and expect to see either one of them clearly. They are entirely distinct and unrelated.

We have already noted the fact that many of our service officers do not understand fully the task organization concept. This is particularly true in respect to joint task forces which involve more than one armed service. This fact becomes one of major significance when we consider the tremendous and increasing degree to which joint overseas operations have figured in World War II.

To the United States, perhaps more forcefully than to any other world power, the present war has brought home with cruel emphasis the overwhelming importance of amphibious warfare. This has been true not only in the Pacific, where every campaign since the outset has been primarily amphibious, but also in the African and European continental theaters. In the latter, before we have been able to bring our armies to grips with German and Italian armies, we have been forced to make large scale overseas amphibious assaults on enemy held shores first in North Africa, then in Sicily and Italy, and finally on the beaches of Normandy and Southern France. Every one of these assaults required joint task organization. Our former conception of continental warfare in Europe, based on the record of World War I, became out-moded the day that France fell. Europe became for practical purposes, a fortress island in hostile hands. To strike at its axis garrison, we were compelled first to win our beachheads at fearful cost in time, effort, and blood.

To Keep War from Our Shores

Suddenly and bitterly, America learned a great and basic lesson, one by which she must surely be guided in her future foreign relations if she would avoid another holocaust. That lesson is that we, of all the great powers, are confronted by the most compelling need to grasp clearly the strategy, and to perfect the equipment, technique, and tactics, of joint overseas operations. For over a century we have been, and we are today, too powerful to be menaced seriously by any attack originating in the western hemisphere. Our consistently demonstrated benign foreign policy of "live and let live" eliminates the possibility of aggression by the U. S. against our hemisphere neighbors. Hence the basic premise:

When and if war comes to the United States again, it will be from across the oceans.

From this flows the corollary:

To keep war from our homes, we must meet and throttle it at the far shores.

The principle educed is inescapable and vital:

The primary requirement of American preparedness is that our military services, all of them, be expert in amphibious warfare.

Putting Power Where It Is Needed

In broad outline, amphibious warfare comprises two principal phases: (1) overseas movement to the objective and, (2) assault upon the objective. Such campaigns make the greatest demands upon transport and require a larger measure of superiority in fire support and troop strength at the objective than any other type of combat. Failure to gain the objective almost inevitably results in disaster, for there are no prepared positions upon which to fall back and reconsolidate. Attempts to reembark and withdraw are certain to be at frightful cost. The British at Dunkerque, the Americans in the Philippines, the Japanese at Guadalcanal, all give evidence that *retreat* from overseas is practically synonymous with catastrophe. Hence, *advance* overseas, to offer reasonable promise of success, must be accompanied by the overwhelming local superiority already mentioned plus *force organization* which insures continuous application of every ounce of that power at the right points as the beachhead expands.

Such an organization requires the utmost in flexibility, for no tactical situation is more critical or develops drastic changes with greater rapidity, than that in the area of an assault landing. Such an organization also must accommodate the unique dependence of the assault troops on the shipping just off the landing beach, and on the uninterrupted flow of that shipping to support and reinforce the forces ashore. These are the fundamental characteristics of joint expeditionary force task organization.

The established flow of command in the organization must be such as to provide for absolute control of elements comprising a multitude of unrelated types whose functions and requirements may vary from hour to hour. This is particularly true during the earlier and most critical phases of the assault. The degree of freedom of action possessed by the various major echelons of the expeditionary force is severely restricted by the complete dependence of the troops ashore upon the shipping. Hence, there are unique problems in command relationships; problems which the organization must accommodate with a flexibility comparable to that required in its tactical operations. As the assault progresses and the foothold ashore grows firmer, the degree of freedom of action afforded the commander of the ground troops must be increased in proportion to his growing emancipation from ship-

ping. The command setup must provide for it. These are the fundamental requirements in the command channels of the joint expeditionary force.

The joint expeditionary force is but one of the major task echelons involved in joint overseas operation. It is the heart of the operation, of course, but during the highly vulnerable passage through enemy waters and the critical early stages of the landings, the expeditionary force must receive constant cover. Therefore, forces are included within the task organization, under the commander of the whole operation, to perform this indispensable function. They consist of one or more fast, powerful naval covering forces, and, when available, a shore based strategic air force. Their function is to interdict enemy communication and reinforcement to the area of the objective and to guard against interference with the joint expeditionary force in the prosecution of its mission. Conditions outside the objective's area sometimes may require that the theater commander himself retain direct control over the covering forces.

To summarize, any task organization is arrived at by the following simple and logical steps:

1. Study of an assigned mission.
2. Determination upon a plan of accomplishment.
3. Breakdown of the plan into phases which add up to the mission.
4. Selection of suitable and adequate forces to accomplish these phases.
5. Organization of the forces so selected on the basis of their functions.
6. Establishment of command channels.

Joint task forces do not differ from any other task forces. They simply require somewhat greater flexibility in command relationships, and they normally involve more complex logistic planning than is the case in forces comprising only elements of a single service.

Assembly Line Ground Crew

For four months, from January 6 to May 6, 1944, the ground crew of the Wild Hares, Marine fighter squadron, sent forward every fighter plane used on Bougainville in the assault against Rabaul. They repaired and placed in commission an average of 33 aircraft daily. The single day's peak was 75 planes.

The Wild Hares ground crew accomplished this by reorganizing to achieve maximum efficiency. Crew members did not lay off when they completed their assigned jobs. They were rushed to help other crew members engaged in work which took more time. In one case, a warrant officer gave orders to majors and captains.

In a combat zone, a ground echelon ordinarily services only the planes of its own flight echelon. In a rear area such as Bougainville, ground crews do the work of other flight echelons as well. The Wild Hares ended up as the only ground force for several flight echelons and for a fighter pool of from 40 to 60 pilots. They also had to ready new planes for combat.

Faced with this enormous task, Major Edwin E. S. Weldon, commanding officer of the ground echelon, and his officers began by instilling in their crew the importance of their jobs.

They next instituted a system of maximum, coordinated endeavor to use every available manpower minute. For instance, it required a great deal of work to ready for combat planes newly shipped from the states. "Pickling" fluid had to be washed out of each plane, the engines drained and refilled, and the prop checked. A check-test of a thousand and one other parts was necessary before the craft could be flown. Ordnance had to install and test machineguns in the wings, boresight the guns, and find gun heaters to keep the weapons from freezing or jamming at high altitudes.

It was decided to send 10 planes through the engineering and ordnance process at one time, assigning five planes to each division. Engineering was the longer process, so enough men were pulled off the line and added to engineering to equalize the time of the two jobs. Timing became the key to success as mass production went to work. Five planes would start through engineering and five through ordnance. The crews finished their work simultaneously and then swapped planes. The 10 planes were finished together and moved out to the line for final tuneup before test flights, and another 10 planes would start through the assembly line.

This process left no time for idling on the part of any member of the ground crew. Three "straw bosses" were spotted along the line with the sole responsibility of moving men from a completed job to one where there was still work to be done.

Not a Wild Hare plane or pilot was lost through operational training flights and there were only three minor mishaps. Every day during the four months the Wild Hares had at least 90 per cent of their planes in commission.

In this rear area, the hard working ground crew of the Wild Hares had only one complaint: "When do we go into combat?" They finally were sent to Guam. It is paradoxical that the Wild Hares ground echelon had to go to a combat zone to get some rest. Living and working conditions were worse, but during their Guam service they had only their own planes to care for. After the Bougainville mass production, it was almost child's play for them.—Sgt. Don Braman, Marine Corps Combat Correspondent.

Salvaging Equipment

Employ captured Nambus against the Jap. He will use your weapons if you leave them in bypassed areas. Before moving out, turn in all excess food, clothing, and ammunition.

By Major J. A. Donovan, Jr.

TO THE uninitiated, going over the field of combat following an operation, one of the severest shocks is caused by the appalling evidence of wasted equipment and supplies. The chaotic litter of abandoned weapons, gas masks, helmets, ammunition, and other impedimenta of war would not make a pretty picture to show the bond buying public.

A certain amount of equipment loss in combat is to be expected. But excessive waste is evidence of a lack of understanding by military personnel of the serious problems posed by such a high expenditure of the weapons and equipment of war in which logistics is over half the battle.

The combat unit that does not conserve its supplies and equipment by means of an adequate salvage system is not keeping faith with the millions of Americans who are buying, building, shipping, and supplying the fighting forces with the best of everything that the country can produce.

Battlefield salvage and conservation, in contrast to supply, must get its impetus from front to rear. It starts with the individual and the small unit. It is the result of indoctrination, discipline, and constant supervision.

To have this impetus each unit from the division down to the platoons must have a "salvage plan" and each man must be aware of it before going into combat. It is not enough to have division and regimental salvage personnel if the battalions, companies, and batteries do not contribute to the salvage system, for in the forward areas the greatest expenditure of supplies is found.

Using Armorers in Salvage Plan

Some Marine infantry battalions have built a successful salvage and recovery system around their battalion and company armorers. These men, working under the supervision of the Bn-4 section, establish the small arms and equipment collecting point near the battalion aid station. As casualties are brought in they are relieved of their arms and equipment. These are then cleaned, oiled or repaired as much as possible by the armorers. The company armorers visit their respective companies daily to take cleaning gear to the men, supply replacement arms and equipment, and pick up unserviceable weapons and gear for repair. Excessive stocks of weapons and equipment accumulated by this section are taken up by the Bn-4 and turned in at the regimental salvage collecting point.

Captured weapons, particularly light machineguns, should be put to use against the enemy. If not needed they should be collected and turned in with U. S. weapons.

The conservation of clothing presents several

"A certain amount of equipment loss in combat is to be expected but excessive waste is evidence of a lack of understanding by military personnel of . . . serious problems."

problems. All clothing gets very soiled in combat, or is rapidly damaged and worn out. Combat troops rarely have facilities to clean or mend their clothes in the forward areas. Common practice is to discard articles that become unserviceable or burdensome. To forestall such waste, men may be required to carry and wear only the necessary minimum of clothing when beginning an operation. One clean outfit on his person and a complete change in the baggage pack should see a man through the first two weeks of active combat. On the third week he can be issued a new outfit by the regimental quartermaster. At the same time the soiled clothing can be turned in to the division mobile laundry. Thereafter whenever a battalion has a rest period each man's soiled clothes can be turned in for a "unit" of laundered clothes consisting of socks, underwear, jacket, and trousers. All clothing would be marked only by size and not by owner's name. Many Army divisions have operated similar systems successfully in Europe.

As the Marines move to the northern latitudes plans have to be made for cleaning and replacing woolen underwear, flannel shirts, and other cold weather clothing.

Why Leave Supplies for the Japs?

Much ammunition and food is lost by being dispersed along the front lines and then not collected before troops move out of their positions. It is a platoon leader's responsibility to see that his men do not leave ammunition or food that cannot be carried. It either deteriorates or is available to the bypassed enemy. Companies and batteries should have these supplies moved to the nearest supply route prior to displacement so that the Bn-4 sections can gather them for resupply.

Make a No Can No Water Rule

Careless handling of the five-gallon water cans is a common offense that can be controlled in the companies only by constant supervision. Care must be exercised over the amount of water sent to the companies, and empty cans should always be turned in for full ones.

Salvage consciousness can be further fostered by sending small working parties back over sectors covered during the unit's advance, with the task of collecting abandoned equipment. When the enemy is sometimes found eating American rations, wearing American clothing, and throwing American grenades, the need for stringent salvage methods is graphically demonstrated.

The American fighting man seems to be inherently careless of his property, not because it is easy to get but because he fails to realize just how expensive it is to get it to him. The Marine is not permitted to waste equipment and supplies while in training. By the same token he should be made conservation conscious in combat, and his unit should have a salvage plan.

Veterans of Many Campaigns Make Up Sixth

About two-thirds of the Sixth Division is composed of the First Provisional Marine Brigade, which won the Navy Unit Citation for its performance on Guam. The Sixth Division includes the 4th, 22nd, and 29th Infantry Regiments, the 15th Artillery Regiment, and other attached units.

Four highly trained Raider battalions, veterans of Makin, Guadalcanal, Tulagi, New Georgia, and Bougainville, are the nucleus of the 4th Marines, activated in January, 1944, to replace the 4th which fought against overwhelming odds at Bataan and Corregidor. The new 4th Marines captured Emirau in March, 1944, and at Guam seized the dominating terrain feature, Mt. Alifan, in addition to assisting in the capture of Orote Peninsula and airfield.

The 22nd Marines were activated in June, 1942, and spent 18 months in American and British Samoa, garrisoning the outpost which protected our lifeline in the South Pacific. Their first operation was in the Marshalls, where they effected a successful landing at Eniwetok atoll, rapidly seized Engebi, Parry Island, and assisted in the seizure of Eniwetok Island against determined resistance, and made over 26 opposed landings on lesser islands of the group. At Guam, the 22nd seized Agat and led the attack up Orote Peninsula.

The 29th's 1st Battalion is a veteran of some of the fiercest fighting on Saipan, where it captured Mt. Tapatcho and suffered 50 per cent casualties in 24 days.

In October, 1944, the 15th Marine Regiment was activated from the artillery battalions attached to the 4th and 22nd Reinforced Regiments that formed the First Provisional Marine Brigade at Guam.

The Sixth cleared the northern two-thirds of Okinawa within three weeks of the time it landed. It seized Yontan airfield immediately, crossed the island, advanced through Isikawa Isthmus, defeated a strong force at Mt. Yaetake, captured the Unten Ko naval base and took several islands off Motobu Peninsula. Then it was called into action on the southern part of the island. An account of the Sixth Divison's campaign in northern Okinawa is given in "To Yontan and Beyond," on page 12.

How They Make the Maps

No one knew just where Guadalcanal was, so the Marine Corps sent out a trimetrogon. In record time it had made a map—that helped change the map of Asia. ***By C. Lester Walker***

"IN the last war," a certain general said to me recently, "we used to call up Paris and say, 'Send us some maps.' But nothing so casual in this war. Now maps are about the first thing we think of when we plan a new campaign. Maps are more important in this war than in any other ever fought. Why? Chiefly because of the new type amphibious operations? Examples?

Take one detail of the taking of Tarawa. There the accuracy and completeness of a certain map saved the entire atoll's water supply from being destroyed.

The Marine command knew that somewhere the Japs had a reservoir. But *where* it was we didn't know. A double danger lay in our ignorance. Since we were unaware of the location, we couldn't send men to seize it soon after landing. The enemy would therefore have more time to accomplish its destruction. Also, there was a good chance that our own naval guns, in ignorance, would smash it up.

A New Zealander who had once lived on Tarawa was asked to take a look at the D-2 Situations Map. This map had been prepared chiefly from air data. It was very complete, but there were gaps in our knowledge of just what some of the Jap installations shown on it were. The New Zealander looked it over, identifying an item here, an item there. He put his finger on a black, rectangular spot about on the mid-line of the island of Betio.

"Good thing your mappers caught this. Know what it is?"

"We don't. It has a roof."

This article is not a discussion of Marine Corps mapping practice only, but covers Army and Navy practice as well. Multiplex equipment, described in the article, is not being used by Marine Corps mapping units.

"Well, by the shape and the location I know. It's the reservoir."

On D plus one, in the night, the reservoir was taken, machinery rushed in, and the Engineers set to operating it.

"It was a 110,000 gallon reservoir," one Marine officer has said, "and if we had lost it, every drop of water would have had to have been distilled from the sea. Thank heaven it was on that map."

Across the world in the Normandy landings maps figured in the mounting of an invasion as never before in history. Over 125,000,000 of them went in over the beaches with the troops.

Fantastic in numbers, they were equally so in kind. There were even surf maps. They showed the height of the breakers on all French coasts, indicating where waves would be found high enough to block out the silhouettes of men wading ashore. A special map was provided for every coxswain of every landing boat. It gave him a panorama profile of the exact section of the exact shore on which he had to beach his boat.

Some of the maps went underground and some under water. The former, for the Engineers,

20,000,000 Photos a Month

Lt. General George S. Patton once said he would not move a single man unless he had photographs of the place that man was to move to. Much of all Army intelligence is gained from photographs.

Upwards of 20,000,000 photographs a month are made for military purposes in the present war. A single reconnaissance group averages 60 missions a day with a minimum of 180 cameras used. Each camera contains a 200-foot roll of film or 250 negatives. Thus, one group alone exposes a total of 45,000 negatives in one day. Sometimes 50 to 60 prints are made from a large number of these negatives. They are distributed to bombing groups, higher echelons, chief of staff, Secretary of War's Office, Commander in Chief of Allied nations.

German General Von Fritsch said in 1938 that the nation with the best photographic reconnaissance would win the war. ATSC points out that we are winning the war.—From an article by MAX B. COOK, *Scripps-Howard Aviation Editor*, in the *Washington Daily News*, May 8, 1945.

showed the sub-beach formation. Whether it was limestone, or peat or shingle, and, in terms of tons of vehicles, what it would take. The underwater maps plotted the location of the wrecking obstacles and guided the work of the Navy demolition engineers.

"There wasn't one angle-iron Belgian Element C under water on the whole coast of France," one Engineer has said, "that those maps didn't show."

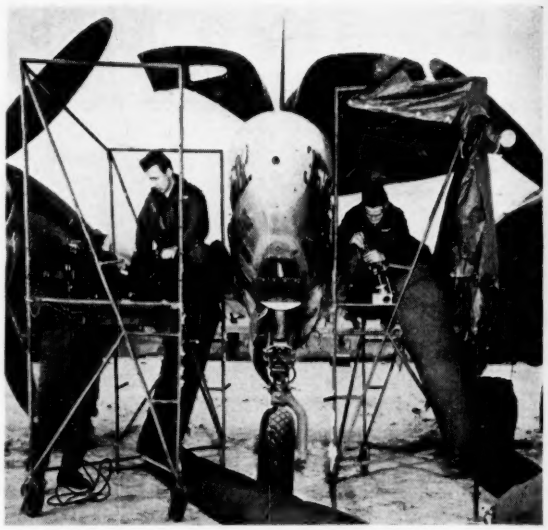
Perhaps most amazing were the tide maps. These were crucial in these landings because of the 20-foot rise and fall. They were so accurate in predicting just where the water would be at a given second in a given area that, it is said, General Montgomery doubted them. He therefore sent a plane, one day before invasion, to check on whether the tide stood at a certain set of obstacles when the tide maps said it would. The checkers found time and tide and location in perfect synchrony. Given a landing craft of a specific draft, it was therefore possible, by consulting the tide maps, to tell at what minute the boat could ground on a given beach, and just where. Such maps, of course, had never been seen in warfare before.

Marine Corps operations in the Pacific produced their own quota of special mapping problems. There was no calling up Paris, or even Washington, for most of the mapping had to start from scratch. The islands where landings were to be made had no maps worthy of the name. New Guinea, for instance, was the least mapped region of its size in the world. Maps of Guadalcanal were so bad as to be almost worthless. Eight weeks before the landings the Marine command planning the expedition, using all the maps and hydrographic charts available, couldn't be sure with any accuracy just where Guadalcanal was. At the eleventh hour it was decided that success of the projected landings demanded that a new map be made. It *was* made—and in record time. Something like 14 days.

How the Trimetrogon Works

This mapping feat brought into the limelight the fastest map-making method which has come out of the war—the now famous *trimetrogon*. It is a way of photo-mapping vast areas in a minimum of time by the use of three cameras which take simultaneously. They are set at three different angles, in the nose of the plane, and shoot, one, directly downward, the other two off obliquely at a slant of 60 degrees from vertical. A photorecon pilot 20,000 feet up can pick up basic data for the map of an unknown country at the rate of 26,000 square miles in four hours. That is an area equal to more than all Holland and Belgium combined.

These photographs are flown to map-making headquarters in the field, or to map production centers like the Geological Survey in Washington, or the Army Topographical Engineers Battalion in Australia. Here the map-making technicians take them over and start work by laying out their flight paths



A trimetrogon setup is installed in an F-5 photo plane by technicians at Wright Field.

on whatever map of the same region may be on hand. Using a rectoblique plotter they then measure the distortion of the oblique angle photographs and make the corrections necessary to square them with the vertical.

Stereoscope magnification follows. Viewed thus, the flight photographs show depth and perspective. The drop of ravines, the rise of mountains stands out. Water courses and other drainage details show up in three dimensions. Then all salient and militarily important features are marked with colored inks and the photos projected on to mapping paper. The draftsmen then draw the desired detail directly onto the sheet.

When the handwork is completed, the map at this stage is called "the compilation sheet," and has its photograph taken. This brings it down to the desired scale and size. Then a sheet of transparent cellulose acetate is overlaid and on this a perfect hand tracing made.

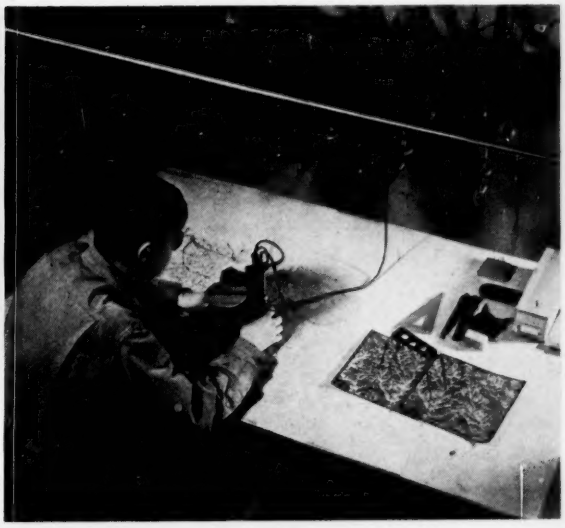
These acetate sheets may go to the printers for final transfer on to map paper, or, as sometimes occurs, such acetate overlays may be sent to front line map-making units. Their especial value in a theatre of operations (as the map reproduction units attached to most Marine divisions can tell you) is that they allow last-minute alterations.

How important this is may not be generally realized. But in the present conflict—because of the extreme mobility of all the forces engaged—maps often get dangerously out of date in a day, or even in an hour.

Before the Guam landings carrier planes took photographs, and maps were changed, daily. In the Bougainville campaign the Marines used lithograph, relief, and photo-mosaic maps which altered every 24 hours.

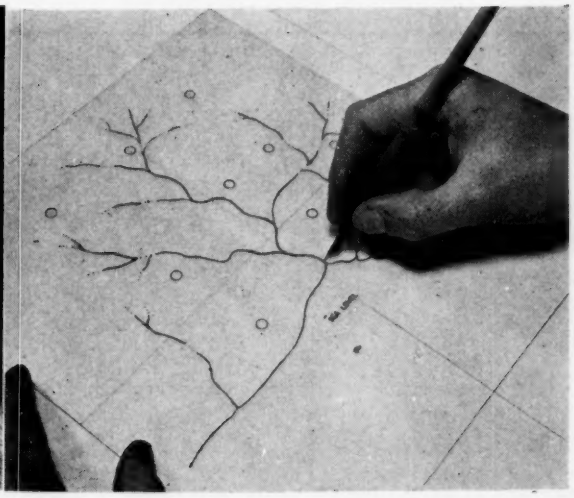
So important was up-to-the-minuteness in the

Photographs are laid out to check sequence.



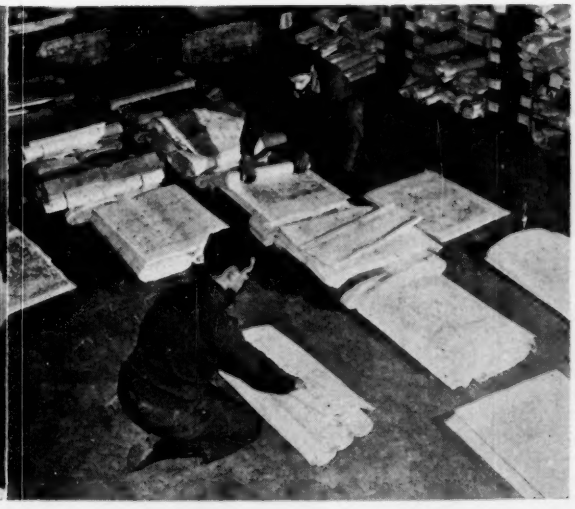
Multiplex gives a third-dimensional effect.

Pencil tracings are inked in to show detail.

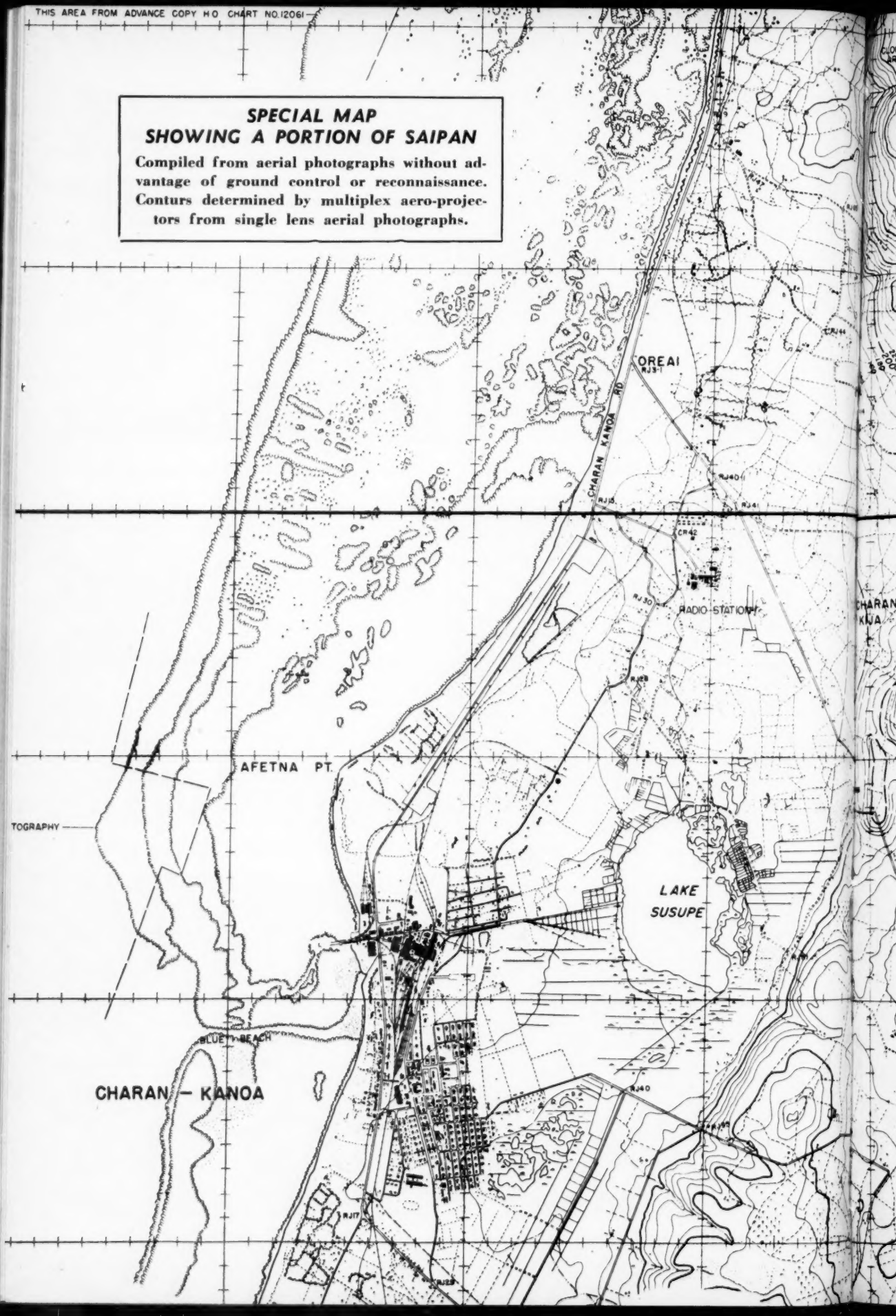


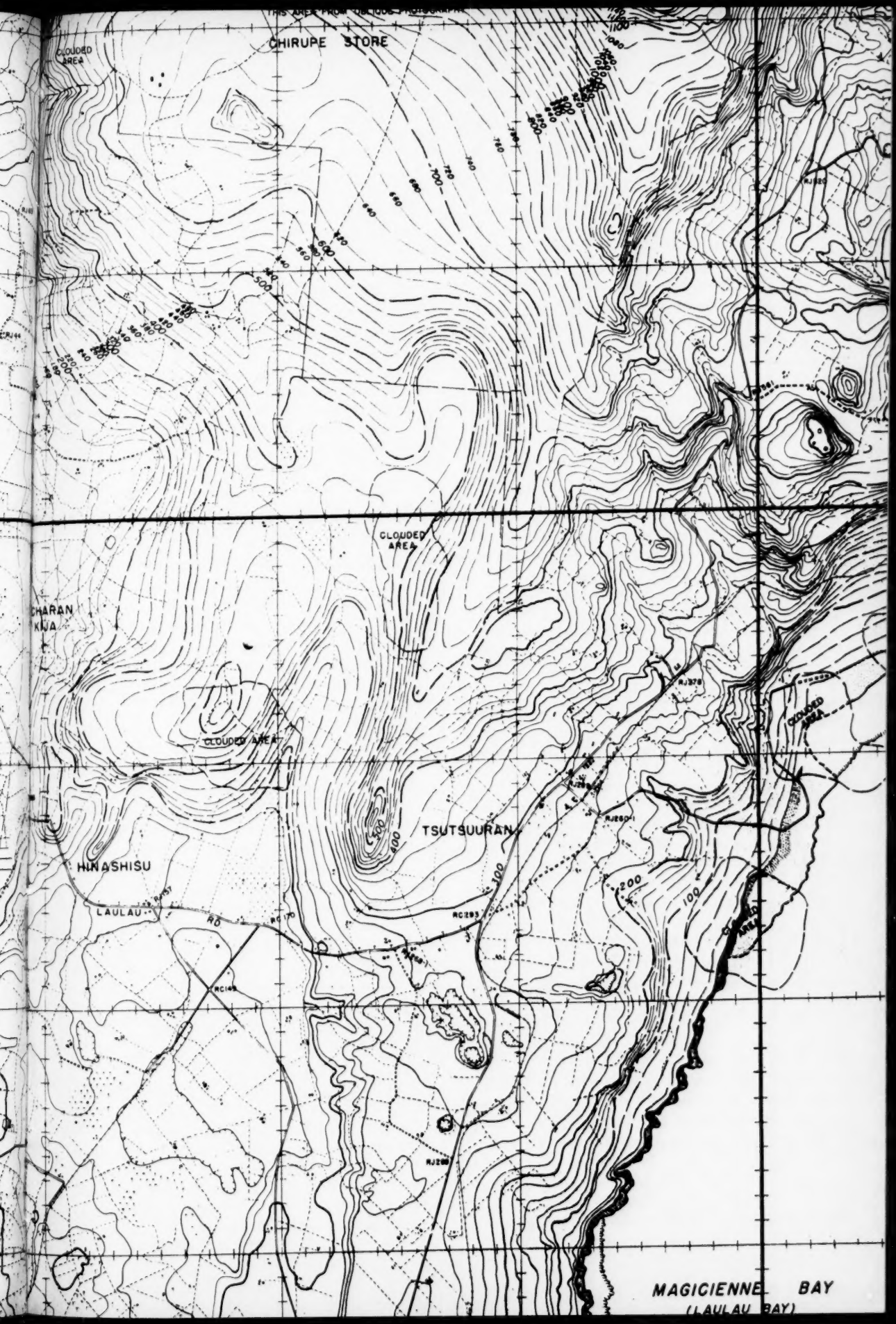
Hydrography is traced on the map in blue.

Aerial negatives are made into diapositives.



Map sections are prepared for shipment.


THIS AREA FROM ADVANCE COPY H.O. CHART NO. 12061
SPECIAL MAP
SHOWING A PORTION OF SAIPAN
Compiled from aerial photographs without advantage of ground control or reconnaissance. Conturs determined by multiplex aero-projectors from single lens aerial photographs.
OREAI
CHARAN KANOA RD
RADIO STATION
AFETNA PT.
TOGRAPHY
LAKE
SUSUPE
BLUE 1 BEACH
CHARAN — KANOA


CHIRUPE STORE
CLOUDED AREA
CLOUDED AREA
CLOUDED AREA
CLOUDED AREA
CHARAN KWA
HINASHISU
TSUTSUURAN
LAULAU RD
MAGICIENNE BAY
(LAULAU BAY)

mapping for the Empress Augusta Bay region that carrier task force photomapping planes covered the area up to the very moment of the landings. A V-D-1 squadron later flew the area daily, dropping their negatives by parachute to the photographic units on the ground. These units printed in trailer dark rooms while the fighting went on around them. The prints were rushed to mapping, artillery, and intelligence sections almost on time-clock schedule

After *trimetrogon* the most widely known mapping method used in this war is the *multiplex system.* This is a slower technique than *trimetrogon* but more precise. It is, in fact, the most accurate of all military map-making procedures. More exact mapping techniques do exist, but they are too cumbersome for military purposes.

The *multiplex,* which starts with a single camera mounted in a photo-mapping plane, will yield ground elevation measurements, from shots taken 10,000 feet in the air, which are accurate to within 1/600 of the flight height. This means to within less than 20 feet.

Normally, the *multiplex method* uses vertical shots. However, a recent adaptation of the instrument permits use of *trimetrogon* oblique shots. The camera used to obtain photographs for the *multiplex* is mounted over an opening in the bottom of the plane and its axis of take is vertical. The plane flies down a planned course, an instrument called an intervalometer regulating the timing of the successive exposures. Each shot "shingles over" the preceding one by about 60 per cent. The plane then returns on a course which sidelaps the down flight.

The photographs on successive runs have to lap over the edge of the preceding flight by 15 to 50 per cent, the amount usually depending upon the nature of the terrain. This back and forth flying, with overlapping flight lines, gives stereoscopic coverage, later to be utilized on the mapping table.

Once the films are developed, they are reduced from their approximately nine-by-nine inch size to miniatures, called *diapositives,* about two inches square. These are put in a series of *multiplex* projectors which hang from a horizontal bar suspended over the map plotting table.

Basic idea of the *multiplex* process is to reconstitute in miniature a "model" of the terrain photographed from the plane. For this reason a stereoscopic effect is obligatory. The overlapping miniatures are therefore projected in complementary colors, one red and one blue-green. In observing them projected on the table, the draftsman wears similar green and red filters over his eyes, and the "model" he sees on the plotting paper is a three-dimensional, true-to-scale portion of the earth's surface in miniature.

It is so true to scale that he can make accurate measurements on it, by use of a tracing table and the proper instruments and scales. His measurements will give him horizontal distance from point to point as the crow flies, or difference in elevation, as from a valley floor to a mountain peak. He picks the detail he needs for the map in process—roads, fences, woods, rivers—and plots them on the paper until his part in producing the map, which will later be printed on the presses, is complete.

Meantime, far from the *multiplex* plotting room, other map-makers are being confronted with situations never encountered in warfare before. For instance, materials always formerly reliable went to pieces in the tropics. At Guadalcanal, one case, the heat and humidity ruined the regular map-mounting fluids. Rubber cement turned gummy.

Wall board, for backing certain maps, because of its unwieldiness, couldn't be taken into the jungle. But a substitute was found.

"We used heavy duck target cloth," one map-unit Marine has reported, "and for stickum just plain old wallpaperer's paste—water and flour."

In relief maps (three-dimensional), portability was always a paramount problem in the South Pacific fighting. Some of these maps were made of plaster-of-paris, and the difficulty of transporting the ones several yards long was early apparent. The job was done, however, by making them in 18-inch squares, to come apart and go together again like picture puzzles. And some relief maps were made of sponge rubber and rolled. "A six year old child," one Marine has said, "could then carry all of Guam."

To the Editor

DEAR SIR:

In the March issue of the GAZETTE, the article entitled "More Rapid Mortar Fire" mentioned the firing of over 400 rounds in 20 minutes. The article also mentions that Jap ammo was used after the mortar platoon used up its ammunition.

It occurred to me that this emphasis on the amount of ammunition used overlooked the importance of properly distributing mortar fire and getting the greatest effect of that fire. I also believe it is poor military judgment to use ammo so lavishly that you must turn to the enemy for your supplies, and that assault troops could not depend upon the support of mortars so used.

An 81-mm mortar platoon in the First Division, of which I was a member, fired less than 1,200 rounds in three months, yet the battalion always had dependable mortar support whenever and wherever needed. The idea is to get the effect of the fire by thorough training in sight manipulation and using the traversing and elevating screws, not to use up ammunition, I believe.

V. T. HAMILTON, CAPTAIN, *USMC*

Our Naval Gunfire Preparation

The staff artillery coordinator advises on the grouping of bombardment ships, shelling times, and support and target areas. Navy makes the annex. ***By Major W. B. Oldfield***

THE planning of the naval gunfire preparation is, according to the book, the responsibility of the Commander Naval Attack Force, the highest command echelon present. The execution of the naval gunfire is likewise the responsibility of the Commander Naval Attack Force, and the recent trends have been toward the delegation of the authority of the execution of the bombardment to a Commander Fire Support. Joint staffs, in conferences, present their views and ideas for the bombardment and support of the landing operation, and these recommendations or requests are incorporated in the Naval Gunfire Annex to Naval Attack Force order. It is the responsibility of the landing force to analyze thoroughly their requirements and to present their requests to Commander Naval Attack Force.

Our interest is primarily in the landing force planning of the naval gunfire preparation, and it is that end we will consider.

The landing force is informed of the target and the available intelligence data of the target is furnished to them for their study and planning. Here the landing force naval gunfire officer, working with the G-2 and G-3 makes his detailed study of the target. But we have introduced a staff officer whose duties it will be well to review, and so that the planning will be at a convenient level, we will discuss that of the division. The division naval gunfire officer and artillery coordinator is an executive staff officer attached to the operations section of the division. Broadly speaking, he recommends to the Division Commander and other staff sections as to the employment of naval gunfire in the support of the division. He is properly a trained artillery officer, and he coordinates the fires of naval gunfire with artillery to gain the greatest effect with a minimum of ammunition expenditure.

As we said, the naval gunfire officer makes a detailed study of the target. Working with the aerial photo interpreters and with the G-2, he studies the enemy fortifications, the strength of these fortifications, and their capabilities insofar as they affect the landing and further campaign ashore. This study might be called a target analysis. One form which has been used and has proved satisfactory follows:

Target	*Type of ammunition*	*Effect desired*	*Description*	*Remarks*
240 A	AP, HC	D, N	Pillbox, trenches	

The target may be listed by target area number, by concentration number on an overlay, or by any other convenient manner. Under the type of ammunition is listed the type which it is believed will be necessary to achieve the effect desired.

Next to consider is the effect desired on the target. Generally the effect listed will be neutralization, destruction, harassing, or some special effect such as incendiary. A vital consideration in this respect is the ammunition available for expenditure on the target. Fire for destruction usually requires a very high ammunition expenditure, and it is desirable to consider carefully whether fire for destruction on a target is worth the high ammunition expenditure. Further, fire for destruction on a target should be attempted only when ideal observation may be obtained. It has been found that close range direct fire is the most expeditious method to be used in fire for destruction. Under the description of the target is listed the type of fortification which is in the target area, and any remarks which will assist in the future planning of the naval gunfire preparation. This is simply a compilation of data, a check list to facilitate planning of the naval gunfire preparation.

Teaming Up with the G-2

As we said, the division naval gunfire officer works hand in glove with the G-2. He studies the stereo pairs which the aerial photo interpreters are studying and with their help is able to determine the probable strength of the enemy fortifications. During the preliminary planning for the assault on Saipan, one aerial photo interpreter located what he believed were three 150-mm howitzers in a defiladed position, sited to fire on the landing beaches. The division naval gunfire officer, when consulted as to the advisability of including these targets in a high priority in the bombardment, was inclined to doubt the aerial photo interpreter's judgment as to the identification of the installations, since all armies of the world have four guns per field artillery battery, and since a fourth gun could not be found to complete the battery.

The targets were included in the plan of scheduled fires, however, and when the position was taken, it was found that there were only three howitzers in this position. It was later learned that the fourth had been loaded on another ship and that our submarines were responsible for the shortage.

Before the naval gunfire can be effectively

planned it is necessary to know and to understand the Operation Plan of the landing force in detail—What, When, Where, and How we intend to land, and what the scheme of maneuver is to be once we are ashore. By personal liaison with the assault commanders the division naval gunfire officer ascertains the detailed plan of the landing force, and exactly what is desired by each commander, if possible, to support his scheme of maneuver. These detailed plans are coordinated with the naval gunfire plan of the division.

Too much emphasis cannot be placed on the coordination between the naval gunfire support and movement of the landing force, especially during that period extending from H-hour to H-plus-2 hours. Consideration should be given to the placing of liaison officers from the landing force aboard firing ships to assist in the location and coverage of targets which threaten or may fire on the assault elements of the landing force. Well trained naval gunfire shore fire control parties of the organic Joint Assault Signal Company have made it unnecessary for firing ships to furnish liaison officers to the landing force, but in many instances a liaison officer thoroughly familiar with the plan and scheme of maneuver of the landing force can assist materially in the coordination of naval gunfire with the further push ashore. This should be considered in the earliest stages of the planning.

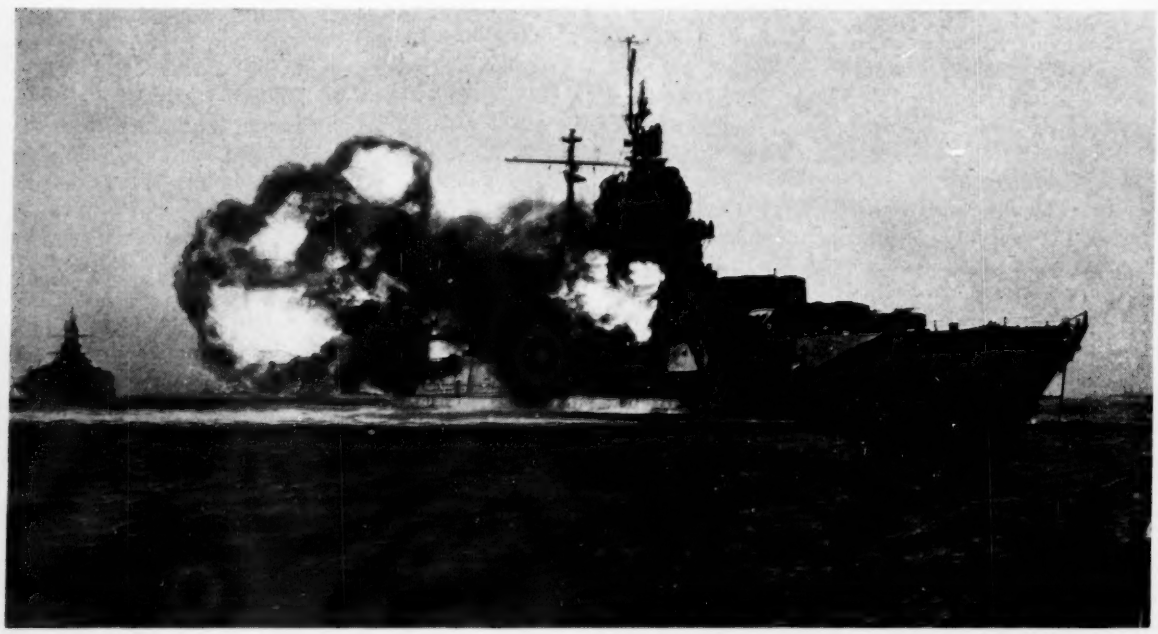
Another consideration in the planning is the employment of some shore fire control parties in radio equipped boats to lie off the flanks of the landing beaches and observe and spot naval gunfire on targets which may be firing on the assault troops as they are landing. Also, air spot working with the shore fire control party on its assigned frequency has proved valuable in the locating and spotting of targets which may be firing on friendly troops. Frequently, air spot by its presence alone will cause the enemy to cease his fire, and it is believed that due consideration should be given to the planning for air spot, especially with shore fire control parties on the flanks of the landing beaches and with those whose observation will be limited after the landing.

Detailed consideration should be given to the method by which naval gunfire will be lifted from the beach. Air Observers' reports have been used effectively, and for large landing fronts it may be desirable that coordination be planned to lift the fire from one beach while maintaining it on another.

No Magic Formula for Estimation

The next step is the estimation of the fire support requirements of the landing force: What gunfire support ships, by types, will be necessary to support the landing force, to reduce the enemy defenses and neutralize the beach defenses, so that a landing may be made without prohibitive casualties to the landing force? This data may be given to the division in the form of ships which are available for the gunfire support of the landing force. But if this is not given to the landing force, it will be necessary to estimate the requirements. Unfortunately, there is no magic formula for the estimation of this requirement, but since more gunfire will be required at the time of the landing than at any other time, by estimating what ships will be necessary to neutralize the landing beaches, and targets which can fire on the landing beaches, a satisfactory answer may be arrived at.

(*Continued on Page* 59)



A battleship cuts loose with a broadside against Japanese installations on Okinawa.

G-2 Estimate—a New Concept

Instead of appraising the situation to decide WHAT to do (usually decided higher up anyway) why not plan HOW to accomplish your mission? *By Lt. Colonel W. F. Coleman*

FOR many years it has been the practice in service schools to give instruction in the use and purposes of a commander's estimate of the situation. The underlying reason for this instruction, of course, is to emphasize to students the need for a commander to employ a systematic and logical means of determining what course of action he should adopt to meet a given situation.

Continued instruction and practice in the use of a form to be followed in making an estimate insures an orderly way of marshalling one's thoughts, and, above all, insures that all factors that can possibly have any bearing on the situation as it exists are given due consideration. If, however, after going through the process of making an estimate, a result is obtained which does not state specifically and in some detail the course of action to be taken, then time and effort have been wasted. This occurs repeatedly when commanders estimate a situation in an attempt to arrive at a decision as has been taught in schools for so long and so religiously. The teaching has always been that the process of making an estimate enabled a commander to make a decision which covered only the elements of what, when, where, how, and sometimes why. A decision was to cover these queries and yet was in no way to resemble a plan. The plan was still another step, based on the decision. How many students in schools were marked down because their decision incorporated a plan!

There are two fallacies in the teaching as outlined above. The first is that in the majority of cases a commander can't make a decision because the decision is made for him and is usually contained in the mission assigned by higher authority. The second fallacy is that the elements of what, when, where, why, and how cannot be properly answered without entering into the realm of planning because those are the very things that must be answered in formulating a plan for the employment of troops.

It is believed, therefore, that an estimate of the situation is made for the purpose of arriving at a *plan* rather than a pure decision, as has been taught heretofore. In actual practice it is found in many cases that if an estimate is made for the purpose of arriving at a decision, the only possible decision that can be reached is to do what higher authority said to do in the first place.

It appears obvious, then, that an estimate is made for the purpose of determining a *plan* which expresses *what* the commander is going to do, *when* it will be done, *where* he will do it and how it is to be accomplished. In addition, it may occasionally be necessary or desirable to state *why* a particular course of action is to be carried out.

In general, how much of the *what, where, when,* and *how* are answered as a result of the process of making an estimate depends on the tactical independence of the commander concerned or on the urgency of the immediate situation confronting him. The *what* is a bald statement of intention and involves one of three tactical courses of action; that is, to attack, to defend, or to withdraw (delay). A commander in independent tactical command will decide to attack, defend, or withdraw after a careful consideration of all factors involved in the situation and will then answer the remaining questions of *when, where,* and *how* to develop his plan. A subordinate commander, in making his estimate of the situation, finds that the *what* has been answered for him in the mission assigned by higher authority; consequently, he goes through the process of making an estimate for the purpose of answering the how of the plan and, if necessary, the *where* and *when* as well.

For example, a subordinate commander is told to "attack at How-hour and capture —— Hill," Here the *what* is to attack; the *when* is How-hour; the *where* is —— Hill; all that remains to be answered as a result of the estimate is *how.* Again, a subordinate commander may be told to "attack and seize —— Atoll." Here the *what* and *where* are given; an estimate must be made to furnish the when and how of the plan.

There is an exception to this in the case of a subordinate commander who finds himself suddenly confronted with a tactical situation requiring such urgent action on his part that he does not have time to ask for or await orders from higher authority. Such cases would occur, for example, in the event a subordinate command finds itself suddenly beset by armored forces or in the event a hostile airborne landing is made in, or very close to, a subordinate command's area of responsibility. In such situations the subordinate commander must estimate the situation rapidly to determine *what* to do; that is, make a decision (attack, defend, withdraw) and then, based on this decision, answer the *where, when,* and *how* in order to complete his plan.

By making a careful estimate of the situation, a commander insures that he will give due consideration to all the factors in the situation to the end that he may adopt a plan which offers the best prospects of success. If more than one plan exists

Command and Staff School Form

I. MISSION.
  a. Statement of the mission.
II. SUMMARY OF OPPOSING SITUATIONS.
  a. Considerations of factors affecting the situation.
    (1) Composition of forces.
    (2) Numerical strength.
    (3) Combat efficiency.
    (4) Arms and armament.
    (5) Dispositions.
    (6) Status of supply and evacuation.
    (7) Terrain.
    (8) Hydrography.
    (9) Reinforcements.
    (10) Assistance to be expected from neighboring troops.
    (11) Time and space.
    (12) Weather.
    (13) Other factors.
III. OPPOSING COURSES OF ACTION.
  a. Enemy capabilities.
  b. Commander's own courses of action.
IV. ANALYSIS OF POSSIBLE COURSES OF ACTION.
V. COMPARISON OF OWN COURSES OF ACTION.
VI. PLAN.

and appears to have equal prospects of success, then that one should be chosen which most favors contemplated future action or is simplest in execution.

The form for the commander's estimate should be simple to use and yet comprehensive enough to enable a thorough analysis to be made of all factors which could influence the situation.

In the past, the Marine Corps has used the form originated by the Naval War College. This was found to be entirely too unwieldy for use by ground forces in rapidly moving situations so a modified version of the Naval War College form was adopted. This is the form found in the present Marine Corps Staff Manual. In the Command and Staff School at Quantico, however, a form which is basically that used by the U. S. Army and found in the Staff Officers' Field Manual, FM 101-5, is being employed with good results. If, after further testing in the Schools, no major defects appear, it is anticipated that recommendations will be made to adopt this form in the Marine Corps. The form is given in outline here. It should be noted that paragraph VI calls for a *plan* instead of a *decision*, inasmuch as the whole purpose of making an estimate is to determine not only what to do, but how to do it.

In actual practice there is a tendency on the part of some commanders to allow their staffs to completely compile the estimate of the situation. The staff then presents the commander with its version of the preferred course of action. This course of action is usually adopted by the commander, and he adds to it the necessary details to make it into the complete plan, thereby setting up the illusion that he has had the benefit of a complete analysis of all factors which enter into the situation.

The mere reading over of an estimate made by someone else is not a satisfactory substitute for the complete understanding of the pros and cons of the situation obtained by personally working on the estimate.

It should be borne in mind that the estimate is the commander's responsibility. Inasmuch as he alone can announce the plan to be adopted, it is essential that he, as well as his staff, take an active part in its preparation so that he will be fully aware of all facts and capabilities considered in it, and thus be in the best possible position to adopt the soundest plan.

Anglo-American Exchange

Shipboard signals are not always solemn. The following exchange of signals between the USS *Acree* and the British escort carrier HMS *Rajah* tells the story of an American seaman who had fallen overboard from the *Acree* the previous dark night and had been saved by lookouts of the *Rajah*.

Acree: Will you please give us the name of person responsible for saving our seaman's life?

Rajah: Believe U. S. Marine passenger aboard our ship was responsible. It lost us an hour, but no doubt gave you a chance to open medicine chest and perhaps draw cork.

Acree: A $50.00 check from *Acree* welfare fund awaits the hero of last night's episode aboard *Rajah*. We are deeply indebted for your assistance.

Rajah: Following men heard shout for help from man in water, and each gave alarm in this order: Stoker, Arch, R.N., U. S. Marines Johnson and Moheny. Able Seaman Hawkey, R.N., threw lifebuoy to man from aft. Congratulations to man overboard for keeping his head; to you for skilful search and successful recovery of him, and to both of us for good Anglo-American cooperation. Would be interested to know: (1) How man fell overboard; (2) Whether he has completely recovered; (3) Whether he believes in miracles. Your kind gift much appreciated, but feel that as so many persons in both ships were responsible it would be fitting if this generous sum were sent to American Red Cross Fund as token of thanksgiving.

The *Acree* concluded the exchange of signals by describing how the seaman went overboard. The donation was forwarded in the name of those involved.—Lt. Commander Nowell Hall, *R.N.V.R.*

TLX—Not What to Do, but How

To bridge the gap between class and combat, Quantico hands officers the school solution, then makes them carry it out in troop leading exercises. ***By Colonel M. B. Twining***

PLATOON commanders are seldom called upon to make Napoleonic decisions; what is required is the ability to execute a simple plan with energy, foresight, and decision.

With this in view, the Marine Corps Schools have developed a new training method for platoon commanders—a method designed to produce a more practical and effective form of leadership among junior officers. It is known as the Troop Leading Exercise, or TLX, and has been developed at the Schools since 1941 to meet the major problem of junior officer training—not *what* to do but *how* to do it.

What to do, from the platoon point of view, presents, after all, no insoluble problem. Possible schemes of maneuver are few, elementary, and easily taught. The platoon can attack straight to the front, or maneuver one or more support elements by way of an envelopment. This is the basic pattern—modified somewhat, it is true, by various possible combinations of elements. A sound knowledge of the simple underlying principles of fire and movement, an eye for terrain, and a grasp of combat formations and their adaptation to existing circumstances is about all the theoretical tactical knowledge needed by the junior leader. Why then spend countless hours of lecture, conference, and terrain exercise in reiteration of the elementary fact that, after all, there are only about five simple schemes for the employment of the platoon—five simple schemes of maneuver resting on a few fundamentals which a young man of average intelligence can master in a few hours of instruction?

The Academic Approach Didn't Work

How to do it is quite another matter. This fact came into focus in the early days of the officer training program, even before Pearl Harbor. Under the system then in vogue, the officer candidate was given a long and exceedingly thorough course in tactical theory, followed by a brief period of field exercises which were supposed to represent the applicatory stage of instruction in its most advanced form. The observed results were disconcerting, to say the least. The average student, presented with an actual problem of leadership, reacted unconsciously to his training and made an utterly academic approach. In situations screaming for simple elementary action we were presented with the spectacle of the leader brooding philosophically, and at length, over a selection of the "perfect" scheme of maneuver. There might be a failure to issue orders, send out orders, send out scouts, or use runners; whole squads might be lost through failure to enforce elementary measures of control; in fact, the young officer might bobble every practical aspect of the whole situation. Yet, if his simple, basic decision was correct, he was fully satisfied that he was competent to command any unit the Marine Corps might ever see fit to put in the field. Also, no amount of advice or well directed criticism could convince him otherwise.

A Masterpiece Could Be Inferior

It was plain that the step from theory to practice had been too abrupt. It was likewise clear that it would take a prohibitive number of field exercises to recondition the young officer's mental reflexes and restore his sense of perspective—to make him realize that even a poor plan carried into execution with vigor, energy and decision was better than his perfect masterpiece unimplemented by proper troop leading steps and failing in execution through lack of drive and personal direction.

These premature field exercises also failed in another respect—they were of little instructional value to the other students participating in the problem for they knew little of the situation and could observe only a portion of the action. What

The platoon assembles as a group and the instructor explains the tactical situation.

Details of execution by key members of platoon are carefully noted by instructor.

they saw was usually wrong and no amount of careful critiquing at the conclusion of the problem could ever quite reconcile the confusion of thought and bewilderment created by this thoroughly negative approach.

The Gap between Theory and Practice

The first and most obvious step was to deemphasize the theoretical aspect of instruction. To use the time thus saved on additional field exercises would help, but would not entirely rectify the situation. At best the field exercise is a tedious and inefficient form of instruction. It teaches a few individuals at the expense of the group. Its tendency to illustrate the wrong way of *how* to do it, rather than the right way, is essentially a negative and dangerous factor.

What was needed was an intervening step to bridge the gap between classroom theory and the practical field exercise. To fill the gap the Schools devised a new and original medium of instruction known as the Troop Leading Exercise, or TLX.

Each TLX is a small squad or platoon problem covering only one phase of a great number of small and diversified situations. Outwardly, it resembles a small scale field exercise, but with these important differences:

1. The TLX is rigidly controlled with emphasis upon correct execution of detailed troop leading steps: control, security, reconnaissance, orders, communication, conservation of time and energy, information and command; particular stress being placed upon the employment of scouts, runners and small security patrols and the methods of controlling and coordinating fire and movement.

2. The TLX does not involve a test of the tactical judgment of the student leader, but is rather a practical exercise to teach the mechanics of fire and movement, security, and control. The platoon leader, for example, is not required to make a decision or formulate a plan. This is done for him. He is presented with a sound decision and an appropriate plan and he is tested on his ability to carry them into execution.

3. The TLX consists of a single situation of short duration which may be halted promptly to correct faulty execution or begun anew if necessary.

In conducting a TLX, the platoon is first assembled as an instructional group while the instructor explains the tactical situation and points out and analyzes each of the various methods of meeting it. The decision, in which the class participates, includes faulty as well as satisfactory approaches to the problem. Arriving at the correct solution, the instructor next carefully explains the plan of execution and points out the method of its application, including a detailed description of the performance expected of leaders, weapons, messengers, and scouts.

When all questions have been answered, the class is returned to its initial tactical (platoon) formation and the problem is carried forward in accordance with the troop leading principles previously laid down. The details of execution by key members of the platoon are carefully observed by the instructor and his assistants. Where necessary the action is halted for correction or, since the execution phase is of short duration, begun anew to redeem error. Upon conclusion of the execution phase, the class is reassembled as an instructional group and the action of all leaders and weapons is carefully critiqued by the instructor, his assistants and the students themselves. The exercise ends with a short summary by the instructor, who restates the tactical principles involved and in particular reemphasizes the correct details of execution.

The proper conduct of a typical troop leading exercise requires about two hours, divided into three phases as follows:

1st Instructional Phase	10 minutes—Orientation. 15 minutes—Discussion of the platoon leader's decision and plan. 25 minutes — Detailed discussion of troop leading steps necessary to give effect to the plan.
Execution Phase	45 minutes — Conduct of the exercise.
2d Instructional Phase	20 minutes—Critique and discussion of troop leading steps. 5 minutes — Instructor's summary of tactical principles underlying decision and plan.

It will be noted that of the two hours required for the exercise 45 minutes are spent in actual execution. This requires that the tactical problem represent a single battlefield incident rather than a

series of continuing situations. It is important that this requirement be observed since a protracted situation would curtail the time allotted for preliminary orientation and discussion and for the critique following the exercise. Likewise by being forced to project his mind too far into the future the student would be required to remember more facts and troop leading details than the average mind can retain. This invariably results in a marked deterioration in the quality of execution.

Four years' experience with the TLX has demonstrated the value of this instructional technique. The controlled decision feature means that every student sees from the beginning only problems which are tactically sound, thus removing the objectionable negative feature found in the uncontrolled field exercises. By mere repetition of the correct procedure proper troop leading habits become second nature to the student. The carefully organized instructional phases of the TLX mean a high level of student participation; the instructional value is thus not confined to the few designated leaders only. Down to the last rifleman the members of the student platoon understand the exercise and take part intelligently not only in the execution phase but in the critique and discussion that follows. In the usual protracted field exercise this is not the case; only a handful of leaders have a grasp of the problem, and both exercise and critique are meaningless to the great majority.

The field exercise, however, is still needed and is still used. It represents the final and most advanced stage of instruction as a test of the leader's ability to formulate a sound decision and a workable plan, but *not* before the leader and those around him have learned to employ smoothly and effortlessly the deft touches of troop leadership needed to breathe life into the best of plans. It still remains a slow form of instruction but in more experienced hands the aimless fumbling disappears and it becomes a medium that is much more positive.

The class reassembles as a group and the action is thoroughly critiqued by the body.

With little modification the TLX can be used for troop training and NCO schooling. It is especially useful in developing and maintaining troop interest due to the greatly increased sense of participation. Flagging interest and bored compliance disappear when the men themselves understand the what and why of their training cycle. In this respect the TLX is merely a recognition of the well established principle that, to be successful, all training must present an appeal to the mind, not to the body alone.

Troop leading is an essential but most neglected factor of success in combat. It is the orderly process by which the will of the commander is translated on the battlefield into terms of men and movement, fire power, and terrain. Like any other subject, it depends on careful training, for it is an acquired not an instinctive art. Better a poor plan carried out with energy, foresight, and decision, than a masterpiece which withers on the vine. Not *what* but *how*.

Capture of Japanese DC-2

On Zamboanga in the Philippines, ground units of the First Marine Air Wing dive bomber and fighter squadrons captured a Japanese military transport of the Douglas DC-2 type. This was the first Japanese plane of this type—the kind the Japs used to carry paratroops in the invasion of the Dutch East Indies—to be seized inatct during the war.

The twin-engined plane, painted a dark green, was found beside a road 500 yards from the Zamboanga airstrip, now Moret Field, when Marine squadrons occupied the strip shortly after the landing. One engine had been removed by the Japs, but the plane was otherwise undamaged except for a few small holes caused by strafing American planes. It stood in tall grass near a jungle of coconut trees.

Marines carefully removed the camouflage netting and palm tree branches which covered the plane. Cautious inspection found only one booby trap rigged up in the pilot's seat. The trap was removed.

The airplane was luxuriously furnished with large, upholstered reclining chairs, metal ashtrays, and "catch-all" nets running down each side of the passenger compartment. The inner metal frame was covered by finished wood or plastic, and curtains decorated the window. The plane probably was used to carry high-ranking Japanese officers.

Marine mechanics of a Douglas Dauntless dive bomber outfit have prepared the plane for use and sprayed out the Jap insignia and replaced it with the U. S. star.—S/Sgt. David C. Stephenson, Marine Corps Correspondent.

Combat Supplies on Pallets

Gear packed in two-ton lots was towed, dragged, and floated into Iwo on sledges that took to beach matting like a DUKW takes to water. Ammo sleds were a natural. ***By Capt. E. H. Klein***

USE of the pallet system in combat loading of supplies has its supporters and detractors. It has been enthusiastically accepted by several officers and has been criticized adversely by others, but every indication is that the pallet system is here to stay, to some extent at least.

A pallet for combat loading is a sled-like contrivance, consisting of a heavy timber platform and runners, upon which supplies and equipment are packaged by strapping with steel bands. They are designed to lessen transport quartermasters' headaches in the preparation of loading plans and to facilitate ship stowage, and are constructed according to relatively rigid specifications. The standard sled pallet is four feet by six feet with an overall height of 40 inches. The weight of the pallet averages 200 pounds; its optimum loading is one ton with a maximum of 2,300 to 2,500 pounds.

Pallets Can Move in Trains

For moving, these pallets are equipped with towing bridles, usually half-inch cable which can double as cargo slings. These bridles also may be used as couplings to join pallets in "trains" when being dragged in tandem by caterpillar tractors. Theoretically, pallets may be landed over any surf passable to amphtracs, DUKWs, or assorted naval landing craft. They may be towed, dragged, floated, or hauled.

This is where the skeptic, thinking of the rugged reef structures and beach conditions found at Tarawa, the Marianas, Peleliu, and Iwo, raises an eyebrow and asks to be shown. Most Marine observers feel that the use of pallets during the assault phase of an operation is limited to level, hard packed sand beaches with little or no reef obstacles —and such beaches are hard to come by.

The Army has used the pallet to a much larger extent than the Marine Corps and endorses it highly. However, it must be remembered that its use by the Army has been on more stabilized beachheads than have been general Marine experience. The Army's success with pallets has been chiefly in the European theatre where a great deal of advance, detailed information was available on well-charted, familiar Italian and French beaches and harbors, as opposed to the Pacific, where, no matter how exhaustive the preliminary intelligence may be, there is always an element of uncertainty as to the exact physical nature of the intended beachhead. Aerial cameras do not record textures and consistencies of beach sands. Estimates of water depths are only logical guesses.

However, Captain Andrew C. Geer, First Field Service Command observer at Iwo, reported that Third Marine Division palletized ammunition was moved quickly and easily by tractors, once traction on Iwo's black cinders was provided by the laying of beach matting.

Web-Footed Supply System

"Pallets worked at Iwo," commented Captain Geer, "and they'll continue to work in spite of beach difficulties. I'm positive that divisions will go out in the future up to 60 per cent palletized."

Advocates, stressing the increase in the speed and mobility of web-footed supply afforded by the use of the pallet, emphasize that it eliminates the old-style "bucket brigade" handling of individual items; boxes, crates, cans, spools, drums, and so forth. The dual advantage here is that landing craft are immobilized for a much shorter time at the water line, always an inviting point of registration for artillery and mortars, and the size of the shore party is correspondingly reduced, lessening the number of personnel exposed to fire on the beach.

Then too, palletized supplies arrive on the beach in a much more orderly manner, pre-sorted, and with a minimum of scramble and scattering. Pilferage also is reduced. The unloaded pallet platforms make ideal prefabricated "hard stands" for the protection of supplies from ground water and there is never enough dunnage available for this during the assault phase. Critics snipe at these ad-

Mass production methods were employed in Captain Simpson's "pallet factory."

vantages with their own well-considered objections.

First, they point out that a large amount of heavy equipment must be provided as a one-ton pallet cannot be manhandled successfully. Special equipment needed includes tractors to drag the pallets and cranes and fork-lifts to lift and move them. If this equipment is not available when and where it is needed, the pallet must be broken down and its components manhandled.

They Take Valuable Ship Space

Deprecators say that even if the pallets are successfully landed on the beach, they are only of practical use in beach dumps and cannot be efficiently displaced forward as the operation moves inland. They also point out that the use of pallets cuts down usable ship stowage space by a third, plus the additional space required for the pallet handling equipment.

This is not of such importance in the initial phase of an operation as it is not feasible in any form of combat loading to utilize more than about 65 per cent of the available stowage space. It becomes extremely significant, however, in the support phase when the resupply ships begin to arrive, particularly if the support echelons are loaded in the rear areas or from the mainland, as is common practice. For a concrete example: if the resupply for a corps requires nine ships with palletized cargo, the same job can be done with six ships conventionally loaded.

Another objection is the time, labor and material involved in the preparation of the pallets. It takes a lot of palletizing to supply a division or corps going into amphibious combat. Lumber, tools, and nails are always critical items in forward areas and it is argued that they can be put to better use than building pallets that may or may not be of value when the chips are down.

But pallets can be built fast and efficiently if they have to be. This was proved by Captain William B. Simpson of the Fifth Field Depot. With a detail of 50 Marines from the Third Pioneer Battalion, he turned out pallets at the rate of 350 a day during the mounting out of the Third Marine Division for the Iwo operation.

Assembly Line to Front Line

Captain Simpson established his "pallet factory" on an assembly line basis, using a tarpaulin covered frame shed about 50 feet long. At one end of the shed was a circular saw jigged to cut two-inch lumber into 48-inch lengths for the decking of the pallet platforms. At the other end were saws jigged for the three cutting operations necessary for the runners. A circular saw cut the six by four inch timbers into 72-inch lengths. Other saws cut the three banding notches in the tops of the runners. Both ends of the runners were cut to a 45-degree angle with a chain saw. At this point the holes for the towing bridles were also drilled.

The cut runners and platform planks converged in the center of the shed where there were three assembly tables. These tables were slotted to hold the runners in place, and were equipped with a backboard to line up the platform decking. After the planks had been nailed to the runners, the completed pallets (except for the towing bridles) were moved out of the shed to the adjacent storage area by means of standard portable roller conveyors.

These pallets were afterwards fitted with double fixed towing bridles, each bridle being 14 feet of half-inch wire cable. The runners were also drilled at both ends with two inch holes for the use of detachable bridles. Captain Simpson advocates the use of the detachable bridle as being handier, stronger, and more economical of cable.

Having built the pallets, Captain Simpson also supervised the palletization of supplies. Any regularly shaped, strong container lends itself readily to palletizing. Ammunition was a natural; its sturdy, wooden boxes were easily stacked and banded with inch and a quarter steel strapping into a rigid, durable pallet load. Five-gallon expeditionary cans for water and fuel were equally simple to stack and move on pallets.

Packaged Supplies Easy to Handle

To protect supplies susceptible to water and spray, waterproof paper, held in place by the steel strapping, was used to cover the pallet loads. Paper tarpaulins consisting of several layers of paper sewn together were found to be much more durable and weather-resistant than ordinary waterproof paper.

To handle less durable and irregular types of containers, such as cardboard boxes, sacks, cans, spools, and so on, Captain Simpson developed a box-type pallet. These were made by adding 32-inch two by four corner posts to the pallet platform and building up the sides with one inch lumber. The "box" was lined with waterproof paper, filled, a top nailed on, and the finished pallet banded.

Captain Simpson, however, who has to his credit three amphibious operations as a commander of service troops, has qualified his endorsement of pallet loading.

"If you have the heavy equipment, the trained personnel, and the beach is right, well, fine," he said. "If not, you're back where you started."

Conservatives still remain skeptical of palletized loading and enthusiasts now are experimenting with floating pallets—miniature, preloaded, watertight barges, towed in tandem by landing craft. Regardless of individual opinion, however, current policy is to palletize to the maximum extent compatible with the nature of the operation. END

Ribbons—How They're Awarded

Decorations and medals are not badges. Big board filters CINCPOA awards. Gallantry, heroism, leadership should be rewarded to improve morale. ***By Major P. B. McNicol***

AFTER Alexander the Great started battle decorations by pinning a gold button on High Priest Jonathan of Israel for valor in combat, such awards appear to have been considered akin to a patent of nobility. They were made solely to high-born and ranking commanders—and rarely. But Napoleon, who once declared that with enough ribbon he could conquer the world, broke Alexander's tradition by handing out medals and orders proportionate to various ranks. Most were well-earned, but a few were complimentary. However, there is no record of complaint from an undeserving recipient.

Medals continued to be on a rank basis until the Battle of Waterloo, when a GI medal was struck to satisfy the Duke of Wellington's wish "that they who have been fellows in danger might bear the same badge of honor."

Decorations and medals are not badges. A badge is for some proficiency, such as marksmanship, parachuting or aviation. With few exceptions, decorations have distinctive outlines, while medals are always discs. A decoration is for a specific act of gallantry; a medal for participation in a designated war, campaign or expedition, or for a noteworthy service. The distinction is sometimes confused by the word "medal" in the official titles of several decorations, such as the Medal of Honor, the nation's highest award.

In this country the first award of valor, the Order of the Purple Heart, was instituted by George Washington in 1782. Originally, it was purple cloth edged with white lace, sewn on the left breast of the tunic. Now, it is gold and enamel, and is issued for wounds. The United States rewarded only ranking naval and military leaders until 1862, when Congress authorized President Lincoln to issue, in the name of Congress, the Medal of Honor.

Uniform Policy Is Needed

American awards today are a function of the One Section, which formulates, promulgates and supervises the decorations policy of a unit. Awards passed out too freely detract from their prestige and diminish the anticipated morale effect; too stringent a policy lessens interest and the desire to win an award, while no policy at all is worse. Uniformity throughout the Marine Corps is desired, and to this end, CINCPAC and CINCPOA has recently authorized a new over-all board of awards for Marines in the Pacific. This board of senior officers reviews each case, recommending the approval, reduction, raising, or dismissal of any recommendation from the field. Findings are submitted to the Commanding General, FMFPac, who is authorized to award all medals normally given to marines except the Medal of Honor and the Distinguished Service Medal. Most divisions have a unit board to review recommendations before sending them on to the "Big Board" or to the Secretary of the Navy.

What the Form Should Tell

There is no standard form, but each recommendation should bear certain characteristics. It should:

1. Include, if practicable, the testimony of at least one eye-witness and be based on known fact.
2. Describe the act, acts or services rendered, giving date or inclusive dates.
3. Give the exact status of the individual at the time the act or service was performed.
4. Identify the individual's unit or command, giving the general area of the action, or, if pertinent, where the acts occurred.
5. Be so explicit and in such detail that the awarding authority can determine whether or not the act or service merits the award.
6. Be accompanied by a proposed citation, or, if a temporary form citation is used, a clear statement for the basis of the award.

If recommendations refer to secret, confidential or restricted situations, they should be given appropriate classification and handled accordingly.

A junior officer rarely recommends a living senior officer for an award or decoration; although not technically illegal to do so, it is likely to be looked upon askance.

But it is the duty and privilege of every officer to recommend for decoration all those who, by gallantry or exceptional meritorious service, have distinguished themselves above and beyond their fellow marines while serving under that officer's orders. All commanders should watch for gallantry, heroism or outstanding leadership. Feats of ingenuity and endurance in keeping the logistical support commensurate with the tactical needs should not be overlooked. Recommendations should be made as soon as possible, while witnesses are available and the facts are still fresh in their minds. Delay may mean that the award will never be made. It is most desirable that recognition be made with due ceremony and publicity.

An item which cannot be overemphasized is the fact that every marine is trained and expected to do an excellent job under any and all circumstances.

With this in mind, serious consideration should be given to the phrase "above and beyond the call of duty." After all, a marine's call of duty is to do each and every task as well as he can. He must be outstanding beyond expectations to deserve an award.

Phraseology should be appropriate. Each description should be literal and where any word may not seem explicit, the dictionary should be consulted. Certain words distinguish one award from another, so the key phrase should be incorporated in the text. The awards most pertinent to the Marine Corps and their key phrases in italics are described below in order of precedence.

The Medal of Honor is awarded "*for extraordinary heroism and conspicuous intrepidity above and beyond the call of duty . . . without detriment to his command. . . .*" It is awarded during war or peace in the name of Congress to any person in the Naval service who, in combat with the enemy or in line of his profession, distinguishes himself conspicuously by gallantry and intrepidity at the risk of his life above and beyond the call of duty and without detriment to the mission of his command. To justify this award, the individual must clearly render himself conspicuous above his comrades by an act, the omission of which would not subject him to censure or criticism for shortcoming or failure in the performance of his duty. Incontestable justification will be exacted.

The Navy Cross, established in 1919, which is awarded "*for extraordinary heroism*" during war to any person who, while serving in any capacity with the Naval Service, distinguishes himself in operations against the enemy. The act must render the individual conspicuous among his comrades, bearing in mind the standards normally expected. An accumulation of minor acts of heroism does not merit this award.

The Distinguished Service Medal, established in 1919, is awarded during war or peace to any person serving in any capacity within the Naval Service after April 6, 1917, for "*exceptional meritorious services to the U. S. Government in a duty of great responsibility.*" Performance, clearly above that normally expected, which contributes materially to the success of a major command or project, is required. A superior performance of normal duties does not satisfy requirements. The Distinguished Service Medal is normally for officers of principal commands. However, this does not preclude the award of the Distinguished Service Medal to others who qualify.

The Legion of Merit, established in 1942, is awarded during war and peace to personnel of the armed forces of the United States and the Philippines without reference to degree, and to members of the armed forces of friendly nations in one of four degrees (namely, Chief Commander, Commander, Officer, and Legionnaire) "*for exceptional meritorious conduct in the performance of outstanding service.*" While nothing forbids the award for individual heroism, it is Navy policy to treat it as a recognition of service rather than of heroism. The service rendered must have been comparable to that required for the Distinguished Service Medal but in a duty of lesser, though considerable, responsibility. The Legion of Merit is normally awarded to officers of lesser commands. However, this does not preclude the award to others whose acts or service qualify them for this award.

Other Awards for Those in Naval Service

The Silver Star, originated in 1918, is awarded "*for conspicuous gallantry and intrepidity*" during war to any person who, while serving in the Naval Service after December 6, 1941, distinguishes himself conspicuously in action although not to the degree required for the Medal of Honor or the Navy Cross. While extraordinary heroism is not required, the act must be conspicuous and well above standard. Accumulation of minor acts does not justify the award.

The Distinguished Flying Cross, established in 1926, "*for heroism while participating in aerial flight . . . or for extraordinary achievement while participating in aerial flight . . .*" may be awarded during war or peace to any deserving person serving in any capacity with the Naval Service. To justify the award, an act in the face of great danger, well above normal expectations, such as to distinguish the individual among those of comparable rank or rating performing similar services, is required; for achievement, the results accomplished must be so exceptional as to render the individual conspicuous among those of comparable rank or rating performing similar services.

The Navy and Marine Corps Medal, "for heroic conduct" established in 1942, is awarded to any person who, while serving in the Naval Service after December 6, 1941, distinguishes himself by heroism not involving actual conflict with an enemy or to any person to whom the Secretary of the Navy has issued a letter of recommendation priror to August 7, 1941, for heroism. To qualify, the individual must have performed a voluntary act involving considerable danger, which stands out above normal expectations. This award may be for acts occurring during battle, provided they do not involve actual combat, as, for example, heroism in tending or evacuating wounded by hospital corps men under enemy fire.

The Bronze Star Medal, established in 1944, is awarded during war to any person who, while serving in the Naval Service subsequent to December 6, 1941, distinguishes himself by *heroic achievement* or *meritorious service* in connection with operations against the enemy not involving participation in aerial flight. To justify this award, accomplishment or performance of duty above that normally expected and sufficient to distinguish the in-

dividual among those performing comparable duties, is required, although less than the requirements for the Silver Star or the Legion of Merit. Minor acts of heroism in actual combat, single acts of merit or meritorious service in, or in support of, sustained operations against the enemy may merit this award.

The Air Medal, established in 1942, is awarded during war or peace to any person serving in any capacity with the Naval Service "*for meritorious achievement . . .*" although not to the degree required for the Distinguished Flying Cross. The achievement must have been accomplished with distinction.

By Authority of Fleet Commanders

The Commendation Ribbon, originated in 1944, and issued during war, is authorized for all persons in the Naval Service who have received or may receive an individual Letter of Commendation for acts or services performed between December 6, 1941, and January 11, 1944, signed by the Secretary of the Navy, Cominch, CincPac, or CincLant. All similar Letters of Commendation for service performed subsequent to January 11, 1944, will indicate whether or not the issuing officer accords this privilege. Authority to award the Commendation Ribbon is delegated to all Fleet Commanders of the rank of Vice Admiral or above, CG,FMF,Pac, and ComPhibPac. Awarding authority will include in the Letter of Commendation permission to wear the ribbon if he desires to accord this privilege. No medal is involved or represented.

The Purple Heart was revived in 1932 for persons wounded as a result of an act of the enemy requiring treatment of a medical officer. A wound is defined as an injury to any part of the body from an outside force, element or agent, sustained as the result of a hostile act of the enemy, or while in action or in the face of the enemy. The Purple Heart is awarded for the first wound and a gold star is added in lieu thereof for each succeeding wound, except that only one award is authorized for two or more wounds received at the same time. The Purple Heart is awarded posthumously by the Secretary of the Navy in the name of the President to any person who(while serving with the Naval Service since December 6, 1941, is killed in action or dies as the direct result of wounds received in action by an enemy of the United States or as a result of an act of such enemy. The Commandant sends the Purple Heart to the nearest of kin on receipt of the report of death or declaration of death, regardless of whatever the previous award has been made to the deceased. Application for the award for wounds received prior to 7 December ,1941, should be forwarded to the Commandant.

Stars in Lieu of Decorations

The same decoration is not issued twice to an individual. For subsequent acts or services which justify the same decoration, a gold star is issued in lieu thereof, to be worn upon the ribbon of the medal and the accompanying service ribbon. Second and subsequent awards of the Commendation Ribbon will be represented by a three-sixteenths-inch bronze star upon the ribbon, one for each award after the first.

Eligibility for Citation Ribbon

The Presidential Unit Citation, originated in 1942, is awarded only during war. It may be given to any ship, aircraft detachment or other unit in the Naval Service for outstanding performance in action on or after October 16, 1941. To justify the citation, the unit must have clearly rendered itself conspicuous by action comparable to that which would merit the award of a Navy Cross to an individual. Carrying out a mission under the ordinary hazards of war or participation in extended periods of combat duty, or in a large number of combat missions, does not in itself justify the award, which is designed to recognize specific acts of heroism on the part of the unit acting as a team. When the unit has received the Presidential Citation, all personnel attached to that unit who participated in the action or in part of the action are authorized to wear the citation with one star permanently, regardless of where serving. Personnel authorized to wear the Citation Ribbon with one star shall wear an additional citation of the unit in which they serve during the cited action, whether it be the same or another unit. Personnel who subsequently join a unit which has been cited will wear a plain citation ribbon without star, and only while attached to the unit. The stars on this ribbon are one-fourth-inch blue stars.

For Distinguished Service Since Pearl Harbor

The Navy Unit Commendation is made to any ship, aircraft, detachment or other unit which, subsequent to December 6, 1941, has distinguished itself by outstanding heroism with the enemy, but not sufficiently to merit the Presidential Unit Citation, or, to any unit which has distinguished itself by extremely meritorious service not involving combat, in support of military operations such as to render the unit outstanding compared to similar units performing similar services. The unit must have performed service, as a unit, of a character comparable to that which would merit the award of a Silver Star of a Legion of Merit to an individual. Normal performance of duty under the ordinary hazards of war, participation in extended periods of duty or a large number of combat missions does not in itself justify the award. No unit, or any part thereof, will be awarded both the Presidential Unit Citation or the Navy Unit Citation for the same act or service. When a unit has received a Navy Commendation, all personnel attached may wear the ribbon under provisions similar to those set forth for the Presidential citation.

Hiding Spotter Planes Up Front

With good cover and concealment, dispersed foxholes, and rigid camouflage discipline, OY-1 crews can keep landing fields close to division CPs. ***By Captain Thomas A. Watson***

IN THE open terrain of Europe, artillery units have made extensive use of small fields in advanced positions for their air observation planes. The advantages of maintaining these division fields close to the scene of operations are obvious. Communication lines are shortened, liaison between observer, pilot, and fire direction center is facilitated, supply and repair problems are reduced, and camouflage discipline enforced. When planes are based upon large airfields in the rear only extensive and diligent liaison will prevent confusion.

RECONNAISSANCE: The job of selecting a location for the field as well as an attractive position falls to the squadron commander or his executive officer and the reconnaissance officer of the artillery regiment. Working together they carry problems of both artilleryman and flyer to the spot and work out the difficulties then and there.

The Field Must Be Kept Hidden

The greatest consideration should be given to concealment and security. In both of our current wars the enemy has been unsuccessful in his attempts to knock these little ships out of the air. Because of maneuverability and low operation altitude, fighters find them almost impossible targets. Antiaircraft gunners hesitate to fire on them for fear of disclosing their positions. Determined to destroy them if possible, the enemy turns his attention to the location of their fields so that he can bomb and strafe them on the ground. Every precaution should, therefore, be taken to hide, and keep hidden, the field and its activities.

There are other conditions which must be considered and which may prevent the use of the field selected. The field must be accessible; a road which will accommodate at least a one-ton truck should lead in. It should drain properly or it will be useful only in dry weather—and wars are notoriously wet. It should present a surface which can be used without grading. No terrain ever looks natural again after it has been worked over with a bulldozer. It should be convenient to the unit which it serves and it should have natural cover close by. Rarely will all of these ideal conditions be found in one place. After thorough discussion,

Excellent camouflage discipline is evident here. Nothing has been disturbed. Growth is typical of the 50-foot mask, and the well-drained runway is only 650 feet long.

the field, and if possible an alternate one, must be chosen which offers most of them.

Field Must have Ample Space

Marine artillery uses the Navy OY-1 which is called the L5-B by the Army. The OY-1 is a light, high wing monoplane with almost unlimited observation from both pilot and observer seats which are enclosed in pyralin. It is built by Consolidated Vultee and powered with a 185-horsepower Lycoming motor. It has a top speed of 128 I.A.S. m.p.h. and an economical cruising speed of 100 m.p.h. Burning ordinary—73 octane—gasoline, it carries 36 gallons in two wing tanks which give it about three and one-half hours' maximum time in the air. Hand operated flaps permit low cruising speed for spotting and low landing speed. Its dimensions are:

Length, 24 feet, 1¼ inches
Height (at rest), 7 feet, 1 inch
Span, 34 feet
Weight, 2200 pounds (Capacity Load)

The field, if limited by trees or other masks, must be large enough to provide ample landing and take-off space. Identical ships are used by both the Navy and the Army.

The runway should parallel the prevailing wind and have at least a cow pasture surface. If the surrounding mask is not more than 50 feet high, 800 feet of landing space is required. If it is over 50 and not more than 100 feet, a 1000-foot runway is necessary. The average width of the field—between trees—should be at least 200 feet. These figures can be shaded under ideal circumstances.

OCCUPATION AND CAMOUFLAGE: When moving into the field, great care should be taken to use existing entrances. New roads into any area are a dead giveaway and you can expect the enemy to photograph your area regularly for the precise purpose of checking up on such improvements. Use the same turn-in at all entrances and exits and don't widen them. Allow no trucks on the field even if it means they have to back out each trip.

To Protect Your Personnel

Disperse personnel shelters, work shops, and operations widely under cover. Mess your personnel with the nearest battery. Do not have a galley near the strip. Under no conditions allow personnel to cut foliage near the strip and in the jungle see that no vines are uprooted or cut. A great part of the jungle overhead is composed of these vines in the tops of the trees and when the stalk is severed the dying tops create great brown spots in the otherwise green scene. The hostile photograph interpreters will send in a report which may cause bombs to fall on you regularly and often. Bomb shelters under trees must be covered for protection against tree bursts. See that they are amply covered but allow none in the open. A foxhole dug under the base of a big banyan tree is about as impregnable as any shelter on earth. Constant vigilance is required to maintain camouflage discipline but see that not one leaf of natural growth is removed unless it is absolutely necessary.

When vegetation on the field itself requires cutting do not cut a runway. Cut the whole field right to the tree line. If the area is not too large have it cut and raked by hand. Remember always that truck tracks—any kind of tracks—indicate activity. When the tracks turn and mill about, they indicate activity that is centralized in that locality. Avoid grading if possible.

Your ships may come to you dismantled or they may be flown in from carriers. In the former case have them unloaded and assembled under cover. If some trees have to be removed for space, cut those which will not disturb the original outline of the field or the overhead. If flown in, and in all subsequent flying, see that pilots make no turns on the strip. When landing continue to roll to the edge of the field then have the ships pulled under the trees before turning them. Endeavor to make tracks resemble a thoroughfare entering the clearing on one side and leaving on the other. Allow no vehicle of any sort to make turns on the field.

Camouflage of Utmost Importance

Disperse planes under cover. Never bunch them so that one well placed bomb or strafing run will damage them all. This applies also to personnel. Never let all of your radiomen live together. In fact, keep all key men separated. Try to arrange their living quarters so that you have a complete crew even if you lose half of your strength. Never allow them to build communal shelters. Have individual holes if possible and never more than two to a hole. Beside the danger of losing them all in one fell swoop, you have the psychological angle to consider. One nervous man in a large shelter may upset all the others. A nervous ground crew cannot service a ship properly.

Never use artificial means of camouflage if you can possibly avoid it. If it must be done study the natural flora and terrain forms about and upon which the object to be concealed rests. Break outlines with props but do not construct another pattern. Man is by nature orderly in his construction, nature never deals in straight lines or regular forms. Carry all nets to the ground in a manner which will suggest a hump in the ground and garnish them with material identical with the surroundings. These materials should be cut far from the field and if perishable replaced before they die and change color. While the ship is aloft the covering should be kept in place, propped up to retain the same form. Always bear in mind that movement or displacement of objects betray activity and invite attention.

Your parent organization will supply local and air security. See that all machinegun posts are concealed and placed well off the field. Antiaircraft

This field is poorly located, being too close to the turnaround, a prominent terrain feature. Tracks turning at ends of field show continuous use as a landing strip.

guns which require 360-degree fields of fire must be placed in the open. These certainly should be placed in another field some distance away.

Checking Your Work from the Air

The aerial observer is trained to give you aerial photographs. When your field has been completed have him go up and photograph it from all angles. From the resulting pictures you can make corrections in your work or establish the fact that you have done everything within your power to conceal the field and its highly important activities.

If, in spite of all your precautions, the enemy discovers your field there is little you can do but move to an alternate. Move out as carefully as you moved in. Leave all camouflage installations and sneak out to your new base. Use the same care in setting up the new field. If no alternate field is available and you cannot move, you will have to abandon some of your camouflage measures and protect your personnel and planes by digging everything in and dispersing even more widely.

Good camouflage demands strict adherence to several cardinal rules:

(1) Remove nothing from a position unless it is absolutely necessary.

(2) Do not disturb your natural cover. If other material is needed cut the same type of brush from an area far removed from your position. This should be collected over a large area so that nude patches are not created in the immediate area of the field.

(3) Make as few new roads and trails as possible. Use existing facilities.

(4) Do not allow vehicles to turn around in the vicinity of your position.

(5) When positions are exposed and whenever artificial camouflage is used, construct nothing in geometric patterns. Remember that nature is always irregular.

(6) Carry all camouflage materials to the ground all around and break the outline of the object concealed with props. Garnish with materials similar to the surroundings. Anything which casts a shadow can be located on a photograph by even amateur photo interpreters.

(7) Determine a camouflage plan including roads and paths to be used prior to moving personnel and equipment into the area. It is too late to consider measures to take after new paths and roads have been indiscriminately made while setting up a position.

(8) Inform *all* personnel of the camouflage plan and enforce camouflage discipline rigidly. Carelessness pays off in casualties.

Properly protected, advance fields can provide a strategic haven for the important little "spotters." The care taken in making their haven complete and secure will pay dividends when the spotter planes, unhampered by distance from their operational area, go to work. **END**

Cave Warfare

The First Marine Division Commander's battle-front analysis of the Jap at bay on Okinawa, a large-scale Iwo Jima, where each strong-point required a battle with little chance to maneuver. ***By Major General P. A. del Valle***

PERHAPS by calling the Okinawa fighting "cave warfare" we may be able to focus upon this salient feature of the operation. Okinawa's terrain is a series of sharp, rocky coral ridges which the defenders have employed with skill and tenacity to resist the attacker. These ridges form the precipitous walls of the valleys, upon whose floor mutually-supported weapons concealed in the elaborate caves are laid for a murderous cross fire. Often the valley entrance is mined to discourage tanks. Usually, the cave positions can enfilade any advance on the open space before the valley. Most caves are so high on the cliff face that infantry cannot close to assault them.

The Jap makes his cave a dwelling to house the required troops, which may range from a small fire team to a platoon, or further elaborates it to make room for his command posts. It is supplied with ample ammunition, food, and water to hold out a long time, even if resupply is interrupted. Except for a direct hit into the cave mouth, the Jap is safe from artillery. Only while using his weapons must he expose himself and his materiel.

This type of heavily fortified zone defense is similar to that which exacted such a heavy toll at Iwo Jima. On Okinawa, the enemy defends with an entire army in a much larger area, so what mostly distinguishes this defense from the Iwo affair is its scale. Maneuver is restricted to a gradual reduction of both flanks by adding troops to our own line in sufficient force in those areas to gain ground. This eventually threatens the enemy rear. As far as the infantry is concerned, it is a frontal assault, a slugging match with but temporary and limited opportunity to maneuver.

The best attack technique seems to be a methodical cleaning out of the draws or valleys by tank-infantry teams together with flamethrower tanks and demolition teams. Having secured a position on a ridge to support such a maneuver, the attacker cleans out the mines obstructing the entrance to the valley, places as much naval gunfire, artillery, and bombs in the side walls of the valley as possible, and then starts his tanks up the pocket. Both sides of the valley must be worked simultaneously. Each cave position is attacked by fire until neutralized, then burned out with the flamethrowers, and eventually sealed by demolitions. Even so, the Jap occasionally digs out, as his caves are so constructed that neither explosives nor flames are certain to reach into them. But on the whole, the method is effective, although slow, painful, and often costly.

Tanks hit mines which have not been swept. They are hit by AT guns hidden in the caves, and they are attacked by suicide squads which dash out upon them with explosives. This latter tactic is largely prevented by the close support of the infantry escorting the tanks. Mortar and artillery fire drops on both tanks and infantry. But in the end each cave is sealed, its garrison killed, and the valley is ours. Then only may the infantry advance across it and seize the heights on the far side. The process then has to be repeated. It may take several days to clean out one pocket. Thus, our advance is slow.

Considerable shelling by Jap artillery and mortars may follow the seizure of the new position, and local counterattacks may take place. The shelling may inflict heavy losses, especially as the rocky heights are difficult to dig into quickly. Sometimes the position has to be abandoned and taken again after counter battery has thinned out the enemy's artillery and mortars. The counterattacks are rarely in great strength, due partly to the broken nature of the terrain.

Basic and Indispensable in the Attack

In "cave warfare," tanks and flamethrower tanks are the basic elements of the attack. Artillery, ship's gunfire, and aviation are, as always, indispensable to neutralize the enemy's fire power, to knock out point targets where possible, and to soften the defenses. I have watched a forward observer do excellent work with single gun salvoes of a ship's main battery upon a prominent escarpment to our front, using precision methods. The eight-inch howitzers are accurate and effective materiel destroyers. A self-propelled 155-mm gun, where emplacement for direct fire is possible, would do a good job of knocking out point targets at point-blank ranges. The infantry might object to them sometimes, however, as they are apt to draw considerable enemy fire. They must displace after each mission. It is believed that the 90-mm medium tank would do better than the present tank, and almost as well as the direct fire 150-mm gun, self propelled. The use of the 4.2 chemical mortar with WP and HE has materially aided the operation. It would almost be indispensable in future operations of this sort. The artillery observation planes have once again demonstrated their worth. There are never enough of them, and replacement of both materiel and personnel should be accelerated. These planes deteriorate rapidly when they are not enough of them to keep a good proportion out for overhaul and checking. The duties of the pilots

are so continuous and exhausting that they, too, must have rest periods.

The rugged ground over which the First Marine Division made its attack was devoid of roads. The engineers did an outstanding job of building roads and bridges, and expanding existing trails right up to the front. But the seasonal rains have made roads a bog. In this zone, supply and evacuation is from 50 to 100 per cent by amphibian tractor. The many uses to which this vehicle has been put include a new feature in the evacuation chain which was promulgated by the Division Surgeon, Captain J. M. Kimbraugh, (MC) USN. The vehicles are fitted with simple racks to take a considerable number of stretchers for evacuating the wounded. In addition, with a tarpaulin over them, they become excellent emergency operating rooms in which considerable surgery is possible. The tractor walls furnish some splash protection against fragments. These vehicles have proved indispensable. They must be provided in sufficient quantity and have overhaul facilities to maintain them, since they quickly become inoperable in rough terrain.

Our Naval Gunfire Preparation

(*Continued from page* 44)

Once we have all this data at hand, we may proceed with the planning. This might include the grouping of the ships available for the bombardment, or the ships requested, if that were the case, into fire support groups for the various phases of the bombardment. An estimation of the length of time required for the shelling would be appropriate and would certainly be included in the request for naval gunfire to Commander Naval Attack Force. The division of the areas for the bombardment into naval fire support areas, and the division of the target areas into target areas of responsibility would be considered and would be accomplished if sufficient hydrographic data were available.

The recommended direct ship assignment for the landing and assault would be made, with particular emphasis on the class of ship to support each unit of the landing force, as well as the targets to be covered by deep support ships covering the landing with scheduled fires.

Naval gunfire would be coordinated with Artillery and Air, by direct liaison with the division air officer and the artillery commander. This would include the allocation of targets which are best suited to the particular weapons to be employed, to gain the maximum effect and least expenditure of ammunition.

A tentative schedule of fires might be made if the number of ships and ammunition for the bombardment were known, but certainly a target priority and recommended effect to be accomplished would be included in the plan.

Support Request Made at Staff Conference

At the joint staff conference between Commander Naval Attack Force and Commander Landing Force, the plan which has been made by the landing force is presented to Commander Naval Attack Force as the request of the landing force for naval gunfire support for the landing operation.

As stated before, the naval gunfire support is commanded and controlled and executed under the direct control and supervision of Commander Naval Attack Force. The landing force can only request and recommend. But it is the responsibility of the landing force to request the employment of naval gunfire to best support the plan, and further, to assist in the actual planning of the preparation by the joint staffs.

To Inform the Landing Force

It follows that the landing force naval gunfire annex is issued for information to the landing force, and although it may be signed by command of General X it is not an order for the execution of naval gunfire. Normally the naval gunfire annex of the landing force is compiled from information in the Naval Attack Force Annex and should properly make some reference that it is an excerpt of data from this document and is published for information to the landing force. Should this data not be known, the landing force might include in their annex that which has been requested from commander Naval Attack Force for the support of the landing force.

The naval gunfire preparation for the landing cannot be overemphasized, and it is the joint responsibility of the commanders that it accomplish that which is desired—the delivering of the landing force to the beach with a minimum of casualties, and the further support of the landing force throughout the campaign to the objective. END

The following list shows the source from which each picture in this issue was secured. All pictures not credited are either official Marine Corps or Navy photos.

20, 22 Coast Guard
38 USAAF
39 Signal Corps
50 Captain E. H. Klein

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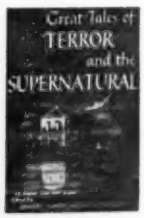

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"The Greatness of His Bravery"

By Captain J. L. Zimmerman

THE armed forces of the Allied Nations are a heterogeneous group and are composed of many picturesque and exotic elements. There are, for instance, the large numbers of Central Asiatic peoples who are fighting with the Russian Armies on the Eastern front; there are our own Indians. There are the Chinese, the Gurkhas, and the Fijians.

One of the largest and certainly one of the most picturesque of the native units to be found in all of the armies opposed to the Axis is the Maori contingent of the New Zealand Army. These Polynesians, the aboriginal inhabitants of the country, are a highly developed, handsome, and extremely intelligent race, noted for prowess in battle.

In the First World War many of the Maoris fought and were wounded in the tragic Gallipoli engagement, and many of those who now wear the uniform of the New Zealand Army hide underneath the uniform the scars of wounds received 30 years ago. At the outbreak of the present war the leaders of the Maori population, which numbers nearly 100,000 people, made representations to the Government of New Zealand for permission to form a battalion as a racial unit. These representations were made two days after the outbreak of the war in Europe, and one month thereafter permission was given and the battalion was formed. Since that time the Maori soldier has been involved in the bloodiest fighting of Greece, Crete, and North Africa. As a rear guard fighter he has been tenacious and bitter in the holding of his positions; as a shock trooper he amazed even the Afrika Korpsman.

The young Maori was recruited in his tribal district, and in common with the Pakeha or European New Zealand soldier he was not sent overseas before reaching his 21st birthday. However, such was his desire to be a fighting man and so inadequate were the birth records of his district that as an old Maori orator and author has said: "The Maori volunteer, not in practice being subject to conscription, and having enjoyed a measure of freedom in respect to registration of such a fact as the date of his birth, lied his way into the army."

Once overseas and in action the temperament and the physical qualities of the young Polynesians impelled them to deeds of bravery. The first Victoria Cross to be awarded a Maori was given to young Te Moana-Nui-A-Kiwa Ngarimu, who was less than 21 years old when he joined the Maori Battalion.

He fought and died at a place in the North African hills known as Tebago. His citation for the Victoria Cross has been translated into the young man's own language by Sir Apirana Ngata, and an English translation of the wording follows:

"In the fighting at Tebaga on the 26th of the days of March, 2nd Lt. Ngarimu was the leader of a small party, the fourth part of a company and his task was to take the spur of a hill, number 209, an important thing for the progress of the fight. And the place he was to take was low and in front of hill 209, where the enemy remained in great strength. His party was led by him up the very face of the hill, it did not falter from the fire of mortars and machineguns, and many men fell there. He himself was the first to arrive at the place, a sign of his lack of fear, he was an example to his men; and two machineguns fell to his hands alone. The enemy survivors fled from there, from the strength of the attack, but machinegun fire was strong from hill 209. Then the enemy thought to advance under cover of heavy mortar fire, he attacked. To stop this, Ngarimu called to his men that they stand up and fight, a man against a man. Then the warriors rushed down, and the attackers were cut down as they came on, and seven fell before the arms of Ngarimu himself. He received two wounds, one in the shoulder from rifle fire and one in the legs from pieces of a mortar shell. And now, in spite of the pleading of the officers of his company and of the officers of the battalion also, that he put himself outside the fight, he would not agree, he said that he would stay a little while . . .

"He was overtaken by darkness there, he and the remnant of his men, lying on the knob on the downward slope of the hill with the enemy on the other side, on their slope, also lying down, one group 200 yards from the other. And all of that night the enemy was busy attacking, trying to clear the hill of Ngarimu and his men. . . .

"In one of these attacks, the enemy, by use of those things called hand grenades came into the lines that were occupied by Ngarimu and the others. Then that man rushed to stop them, the enemy was struck down, and the survivors of them were struck with thrown rocks and attacked with tommy guns. Then the enemy attacked again, and in one place the line of men broke. He raised his voice and cried out to his men and heartened them, and they drove back and regained the place whence they had been forced. . . . When morning came the hill was still his, but only he and two unwounded friends remained.

"New men came up to him, to help him. In the morning the enemy attacked again, and in this attack Ngarimu died. He died erect, with his face toward the enemy, and his weapon at his side. And he fell on top of the heap of the foe that had fallen to his weapon, and the number of them told of the greatness of his bravery." **END**

The "49½" Regiment of Foot

By R. M.

THE British Royal Marines are soldiers raised and paid by the Admiralty and trained for service at sea. That has been their main function ever since they first came into being in 1664 under the title of "The Duke of York and Albany's Maritime Regiment of Foot."

Since that year they have been disbanded and re-formed several times. They have often been maids-of-all-work, both to the Navy and the Army, but they have always remained primarily sea soldiers, and they still retain at least one of the original duties, that of policing the ship.

This was one of their more important tasks in the early days, and was one of the main reasons for the formation of the Regiment. In those days sailors were press-ganged into the Navy or taken from jail on offer of a pardon in return for serving His Majesty afloat. As a result, the lower deck was a hotbed of crime, mutiny, and violence. There was need for an organized and disciplined body of men in every ship to keep order, and often to protect the officers from the violence of the men. The Duke of York took upon himself the task of raising a regiment of Marines. He raised them from the trained bands of London, and they proved a considerable success.

This connection with the City explains several of the characteristics and traditions enjoyed by the Marines, notably the privilege that they share with several other regiments, of marching through the City itself with colors flying, band playing, and bayonets fixed. To the trained bands they owe their nickname of "The Jollies" and also the buff which is one of the regimental colors. Buff was also the Duke of York's color and was the facing of the original uniform.

Although they proved their worth in many directions, the Marines continually suffered disbandment whenever a period of peace ensued. They regularly were re-formed when a war commenced, until, in 1755, they were re-formed for the last time and have had a continuous existence ever since.

It was before this, in 1704-06, to be exact, that they had won their greatest battle honor. In 1704 they were among the troops which, under Admiral Sir George Rooke, captured Gibraltar. They were left behind to form a garrison, and for 18 months defended it against continuous assault by the French and Spanish. It is this defense that is represented by the name "Gibraltar" on the colors, the only name that appears on their crest and colors.

In the middle of the 18th century the Royal Marines were an accepted part of a ship's company. They lived in their own barracks amidships, a buffer between officers and men, where their quarters remain to this day. Not only did they serve at sea, but in most of the important land campaigns, and they had already taken on their role of landing parties. On a notable day in 1761 they captured the island of Belle Ile in a gallant landing which earned them the nickname from their French enemies of "The Little Grenadiers." It also brought them the award of the Laurels, still part of their badge and crest.

From time to time during these years additional regiments were raised, and when the immediate need for them as Marines was over they became regiments of the line. The present Royal Marines, by an edict, passed on their permanent formation in 1755, are the "49½" Regiment of Foot, for when parading with the Army they take post between the 49th and 50th Regiments of Foot. When the Navy is on parade, the Marines take post with them on the right of the line.

In 1802 the Regiment was made Royal, in recognition of service, and in 1804 a new branch came into being with the formation of the Royal Marine Artillery. They wore blue tunics instead of red, and their purpose was to man ship's guns. Up to that time mortars and carronades in bomb vessels had been manned by the Royal Artillery, but this had led to a good deal of trouble and lack of cooperation, as the Royal Artillery resented doing any work in the ships other than gunnery. The Admiralty therefore decided to have its own gunners for this purpose, and Royal Marines were trained for the job. Gunnery, guard, and police work became the Marine routine afloat, and as armaments increased in variety the Artillery took over the heavy guns and the Light Infantry doubled their original duties with the handling of secondary armament. This arrangement still persists, except that the Royal Navy now has its own gunnery ratings, and the Royal Marines man one main turret (the upper after one), and about one-tenth of the secondary armament. They still do police and guard duty, and often help with signals work. The Royal Marine signaller is required to qualify in Naval and Army signals, and to be prepared to work with either, ashore or afloat.

As in the 18th century, every war and battle of the 19th century found them present, from the Maori Wars of 1832-34 through the Crimea and the Indian Mutiny, to the Sudan, the Boer War, and the Boxer Rebellion in China in 1900. The colors were carried into action for the last time during the Japanese War of 1863, and the newly instituted Victoria Cross was won on three occasions during the Crimean War. A memorial of the Sudan Wars

is a Royal Marine cemetery at Tel-el-Kebir in Lower Egypt, where a detachment was largely instrumental in gaining victory, though at heavy cost.

Nowadays, there are many more branches of activity. In 1923 the Artillery and Light Infantry were amalgamated into one Corps of Royal Marines and they remain so, but their original duties survive. To them have been added, apart from infantry work, all branches of shore gunnery and all the duties incurred in the defense and operation of an advanced naval base, such as pier building, survey, and labor and stevedore work. AA batteries took part in the defense of Hell Fire corner in 1940, and those same batteries later went to Crete. In company with such units as the signals detachments they fought the rearguard action, at a cost of 60 per cent casualties in killed and missing.

The Royal Marine Engineers are another little known branch. They built such things as defenses at Scapa Flow early in the present war, and going farther back, were responsible for the Nab Tower off Spithead, built during the First World War.

In spite of all these added activities, the Corps still provided detachments to all ships of the size of a light cruiser and upwards. The officer in command usually has charge of the ship's secret and confidential books and does ciphering duties. In action he has important gunnery control duties and his junior officers command turrets. He must have at his fingertips all the many duties of his detachment, from landing parties to painting ship.

The senior NCO who is always called the Sergeant-Major, has the curious duty of seeing that the navigator has wound the ship's chronometers and of reporting the fact to the Captain every morning. The men under him perform a variety of duties. They serve as postmen, butchers, printers, wardroom attendants and officers' servants, corporal of the gangway, and, in a flagship, as admiral's orderly—in addition to guard duty. A member of the guard acts as keyboard sentry, a responsible job, as the keys of such things as magazines are his responsibility. He must see that they are signed for and returned, and that no unauthorized person takes them.

In this war still more tasks have come the way of the Royal Marines. Combined operations have always been a natural outcome of their training, and when combined operations really began to assume importance and became a separate command, the first Chief was a Royal Marine general, Sir Alan Bourne. At that time the Corps had an increasing number of infantry battalions trained in special assault work, and they and the newly formed Army Commandos were the nucleus of the landward side. The Royal Marines also formed commandos, and finally, in 1943, the infantry battalions were disbanded and formed into commandos. At the same time, all commandos, Army and Royal Marine, became one force.

This did not end the new jobs. The Royal Navy with more and more ships coming into commission, found its manpower stretched, so the Marines took over the minor landing craft side and combined operations. They thus released large numbers of ratings for general service and became shallow-water sailors, a job which after scarcely a year of training, they carried to a successful culmination when they took over the troops to Normandy for the Second Front.

Water Landing or a Bail-out?

Twice within a month, 1st Lieutenant W. L. Sonnenberg had to ditch his plane at Babelthuap Island. Last November he was hit by AA and had to bail out. His chute carried him down to a deep water channel, and he swam 300 yards to a small island to get away from Jap fire. A half-hour later he was picked up by a rescue plane.

The second ditching was necessary less than a month later when his engine conked out over the same island. A bail-out was possible, but Lt. Sonnenberg decided against it and glided down near the surface of the water. His plane went in, nose down at a slight angle, and he had 20 seconds to get clear. Fifteen minutes later he was picked up from his life raft by a PBY.

From these two different types of ditching, Lt. Sonnenberg has drawn the following conclusions:

1. Make up your mind quickly and stick to it.
2. With nose slightly up, an F4U lands well even in fairly rough water.
3. Depth perception is difficult, over any kind of sea, for a fighter pilot. Try to look obliquely rather than vertically.
4. The advantage to be derived from using the parachute as a sail is greatly overrated. It is too easy to egt fouled up or swamped unless unusually favorable conditions prevail.
5. A good chronological sequence to follow in a water landing ,after leaving the plane, is: loosen shoulder straps, inflate "Mae West," loosen leg straps.
6. Statistics in proof of the relative advantage of bail-out versus water landings should not figure in the reckoning. Conditions should determine the course of action and they are never the same, twice in a row.
7. If conditiotns made the decision a toss-up, a pilot with only a few hours should probably bail out, and one with hundreds of hours water land. The point is that skill in maneuvering the craft near the sea and just before landing is of the utmost importance.

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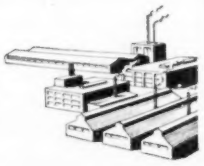

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To the Editor

DEAR SIR:

The article, "Fighting With Fire," which appeared in the February issue of the GAZETTE, is mainly correct in its fifth paragraph, where reference is made to the first employment of flamethrowers by Marines on Guadalcanal. However, there were some errors in this paragraph. Because of the historical importance of the event, and because it is still fresh in the minds of those who participated, I would like to furnish the correct and complete details.

The 6th Regiment of the Second Marine Division trained intensively in assault tactics employing flamethrowers at Camp Elliott in 1942. However, the unit carried only six flamethrowers and a limited supply of fuel to Guadalcanal. This unit was not available when the attack in which the first flamethrowers were to be used was launched.

Just after the Division landed on Guadalcanal, I learned as division operations officer that the Army had 20 flamethrowers that had been on the island unused for some weeks. We borrowed the flamethrowers and an Army technical sergeant familiar with them. He instructed some Marine sergeants in the stripping and assembling of the weapons so that they could be prepared for use.

Then the First Battalion of the 18th Marine Engineers was called upon for volunteers to operate the weapons. Eighteen men promptly volunteered for the assignment, although none ever had seen a flamethrower before. The volunteers were instructed in flamethrower operation for three hours by a Marine gunnery sergeant.

The problem of fueling the flamethrowers arose, and a major from the Army's Chemical Warfare Service arrived to complete arrangements for fuel. He discovered a sufficient supply of fuel, but examination revealed that a small but essential piece of the refueling apparatus was missing. The Major made arrangements with his ordnance company to make the piece in an hour and a half. The Major also agreed to use his own transportation and Army personnel to establish and maintain a refueling point within 500 yards of the front line. This was established and maintained for the next several days.

The published article states that the operational use of the weapon was in doubt on Guadalcanal. This was not the case among those endeavoring to use the weapon. In fact, everyone cooperated to make their operational use a surprise to the enemy. Marine Aviation dropped improvised flame bombs

in rear areas to induce the Jap high command to dismiss as unreliable any reports of the use of flamethrowers.

We fully realized that the proper use would have been to place all of the flamethrowers in operation in order to obtain maximum tactical surprise. However, the need was so great that six flamethrowers with 12 operators were placed in action immediately. The next day, an additional six were ready to go and were sent to the front lines. New volunteers were trained until the entire available flamethrowers were in action. The Army asked for and obtained the return of six of their flamethrowers within a few days of the first successful operation.

The 8th Marines was the unit first allotted the use of flamethrowers. As I was the only officer in the division who had seen the Army Training film on use of flamethrowers in the assault, I was assigned to give a 10-minute talk to officers of the regiment, which was already in the front line. All of the officers who were to use the weapons had been in the hills in Nicaragua, where the rifle grenadier had been a platoon leader's weapon. The analogous situation was pointed out, and the proper tactics were understood immediately.

The first flamethrower team of weapons and two men arrived at the attack point at 1600. They took out the first nest at 1610 and the other two within 20 minutes. Thereafter, the cry was for more flamethrowers.

You may see from the above that the Army, Marine Aviation, and the Second Division cooperated to a high degree in placing the flamethrowers in operation. Their value was fully appreciated and the tactical use was sound in that no casualties were suffered by the flamethrower operators—at least for several days. The real heroes were the lads that unflinchingly carried the weapon into action after only three hours' instruction.

JOHN H. COFFMAN,
Lt. Colonel, USMC.

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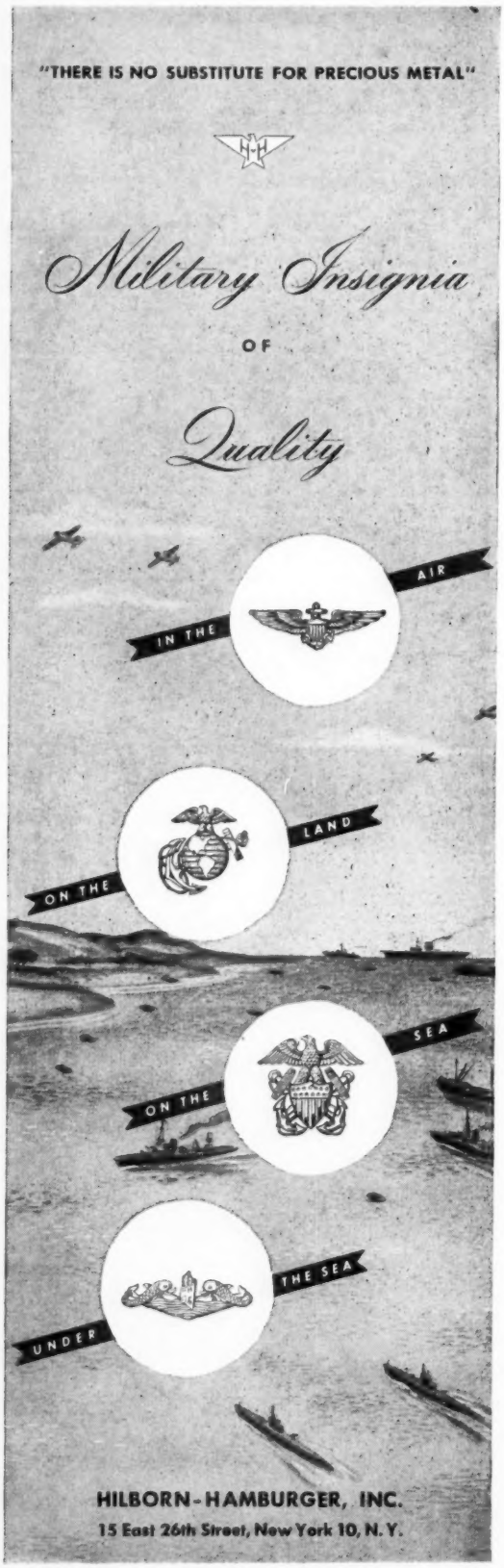

Kamikaze—Same Jap In a New Package

THEY'VE given him an education, a ceremonial robe, and a machine more complicated than a Nambu, but he's the same Jap.

They call him a Kamikaze pilot, but for three years Marines have been digging him out of caves all over the Pacific. He is the same Jap who holed in and died at Guadalcanal, Tarawa, Saipan, and Iwo Jima, who tied a mine to himself before a banzai charge.

Dressed in funeral robes, with his face whitened to resemble death, he struts around his home town, his hands folded across his breast, his head shaved. For the past few days he has been given lots of fancy chow. Everyone bows to him. He is a chosen one—a Kamikaze pilot who will fly to certain death for the Emperor and for his own immortality.

Kamikaze assuredly is not a new product of the Japanese mentality. But it has taken a toll at Okinawa which makes it an object of tactical interest.

Land, Sea Casualties Almost Equal

Okinawa casualty figures, instead of being much heavier on the infantry side, show that sailors and coast guardsmen manning Naval vessels suffered almost equally with ground troops. In 14 weeks, the Navy and Coast Guard lost 4,729 and the Army and Marine Corps 5,492 in killed, wounded and missing. The Navy announced loss of 25 ships and damage to others. Calls went out for 15,000 skilled workers to man West Coast dry docks and repair vessels damaged by Kamikaze.

Now, Japan threatens to commit the remains of her fleet to Kamikaze attacks, and boasts of plans for a national Kamikaze, of all people of the empire. These indicate one thing—Japan is at bay.

Since his first setbacks at Midway and Guadalcanal, the Jap has frittered away planes, ships, and men with minor results. Kamikaze tactics may prove to be even more costly to him, but they may bring greater results by bolstering his home front with some more suicide morale.

Kamikaze means "divine wind." Back in 1280, when China's Kubai Khan tried for the second time to invade Japan, a typhoon destroyed the Khan's fleet of 4,000 ships and more than 100,000 men. Seven years earlier, violent storms and wind had scattered an invading fleet.

Today's divine wind takes the shape of human bombs, airplanes, motorboats, swimmers, and so on. Jin-rai or baka bombs are the human bombs which Japanese declare are inflicting terrible damage upon the Allied fleet. *Asahi* says the Japs began to perfect the Jin-rai last summer and it was tested

in October. It is a rocket-propelled bombloaded plane with about a 16-feet wing span. It is released from a mother plane and has a Jap sitting in it as pilot.

Jin-rai ("Man Thunder") is supposed to have claimed most of the 500 ships Japan insists have been lost by the Allies at Okinawa. Naval men on our side can only conjecture on its effectiveness as they say they've seen very little of it.

Both Kamikaze and Jin-rai pilots are so-called volunteers, between 18 and 24 years old. They are graduates of cadet schools—fighter pilots who have volunteered for certain death in battle. Despite Tokyo's propaganda it appears that at least some Kamikaze pilots are "You-you-and-you" volunteers. Several have tried to prolong their doomed existence by various aerial acrobatics. But when they take their Kamikaze oath, most of them are as good as dead. They are given six months' training, then they're off to die for the Mikado in an aerial banzai charge.

. . . So the Jap is locked into his planeful of explosives—locked so he can't lose heart and jump ship or jettison the bombs. He gets no parachute. The plane is going to blow up the minute it hits anything. His load will explode on contact, when Jap, plane, explosives and all go to pieces in a spreading flame.

He circles three times above the landing strip. All those on the ground stand at attention.

His controls set, he comes in on his target in a violent dive. But ack-ack usually gets him first, deflecting his plane so it misses the ship. Sometimes, however, he grazes it as he goes by to explode in the sea. But once in a while he hits the ship square.

Kamikaze first showed up in planes at Leyte, when Jap flyers tried deliberate crashes on our ships. Sometimes Kamikaze will be in the form of a coxswain of a motorboat filled with explosives, steering directly at a vessel. Ships' gunners have picked them off at Okinawa. They also have spotted and deleted swimmers laden with mines.

Road Hog, Jap Style

At Iwo and Okinawa, Jap infantrymen hugged dynamite or mines and camouflaged themselves. They hoped an American tank or truck would pass over them, thus allowing them to head for immortality in a blaze of glory.

Admiral Chester W. Nimitz declares Japanese suicide killers have sunk not one of our battleships, cruisers, or major carriers and that the Japs are getting "negligible effects" from their costly investment in Kamikaze men and equipment. Some major units of the fleet have been damaged and some smaller vessels have been sunk, but most of those attacked have remained in operation. Mechanical methods of making the effects of Kamikaze planes even more negligible also are under way. Soon they'll be hitting a solid wall of ack-ack. END

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Marines' Little Helper

In the course of serving as infantrymen and demolition crews because no military police duties developed during the Tarawa battle, Marine MPs came upon an unusual prisoner whose volubility and persuasiveness gained him the name of "Tojo the Earbanger." This Jap was one of a group of eight Japs and Koreans who were dislodged from their pillbox by a charge of dynamite set by the MPs during the third day of the battle. Upon promptly surrendering, the prisoner began his career of usefulness by informing the Marines in inadequate English and eloquent pantomime that there were four more persons in the pillbox. Another charge of dynamite dislodged them. Three came out with their hands up. A fourth, hiding behind the three, came out firing. He was killed.

Attaching himself to the MPs, "Tojo the Earbanger" went to work on eight more pillboxes which had been holding out. He went into each pillbox and apparently explained that dynamite was going to be used unless the occupants surrendered. He obtained results.

"Tojo the Earbanger's" efficient assistance was to a great degree responsible for the MPs ending their third day of fighting on Tarawa with eighty-one Japanese and Korean prisoners.—MTech. Sergeant Samuel Shaffer, Marine Corps Combat Correspondent.

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